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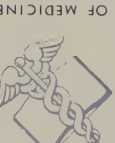


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THE ELEMENTS OF MODERN DOMESTIC MEDICINE.

A PLAIN AND PRACTICAL HAND-BOOK,
DESCRIBING
SIMPLE DISEASES,

THEIR CAUSES, PREVENTION, AND SAFE HOME TREATMENT;
THE EARLIEST SIGNS THAT A PHYSICIAN IS NEEDED,
AND
THE PROCEDURE TILL THE DOCTOR ARRIVES,
IN ALL EMERGENCIES.

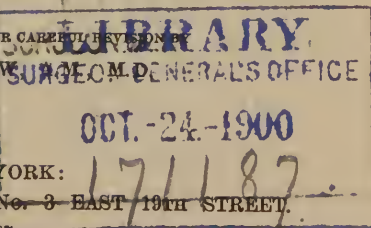
BY

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THE WHOLE ISSUED AFTER CAREFUL REVISION BY

A. H. LAIDLAW



CHARLES T. HURLBURT, No. 3 EAST 19TH STREET.

1887.

Annex

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1887

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PREFACE.

THE world is chiefly filled up with sick folk. The drug stores are startlingly abundant, and crowded with a bewildering array of mysterious concoctions, most of them dangerous, intended for the relief of the sick. The people are trying to cure themselves, and are listening to the advice of friends and neighbors, of quack advertisements and newspaper puffs, and are putting into their stomachs gallons of stuff of whose composition and qualities they know nothing, and from which they oftentimes suffer more than from their original diseases.

The author is not a believer in the wisdom of attempts, by those uneducated in medicine, to cure diseases occurring in themselves, their families, or their friends. Such attempts usually result in waste of time, often in waste of money, and not infrequently in still worse consequences. The study of medicine is a serious matter, requiring the unflagging attention of a lifetime ; and the results of such study are not to be condensed into any book for the ready use of any person who may choose to read and apply, without previous study or experience. Nor have we any need to attempt, at the present day, to so render available the knowledge of the physician, for the doctor himself is at hand in every village and hamlet of the land, ready at the first summons to give advice and assistance far more valuable than that of any book.

But the physician's first duty is to give advice and instruction, to study disease and its causes, that he may warn the ignorant and the vicious of the danger that lies in their paths, and thus keep the healthy strong and sound, and avoid, if possible, the necessity for the remaining part of his task, which is to find out and apply the means provided by Nature to help on the work of recovery when sickness shall have become a fact.

Advice, instruction, warning, help, can be given by the pen, and to give them simply, directly, plainly, practically, and safely, is the object of the present book. It does not pretend to cover the subject of medicine, it does not attempt to make doctors of its readers, or to save them the necessity of employing physicians. Recognizing the facts that most diseases tend toward recovery, that there is an inborn tendency in the human family to help itself out of any difficulty, and that the doctor is often disturbed by calls for which there is no necessity; the author has written what should be known by everyone about the causes of disease, what is most likely, without harming the patient, to relieve those troubles which may safely be treated at home, and what are the first signs that things are taking an unfavorable or dangerous turn requiring the attendance of a professional medical adviser.

Moreover, much attention has been given to the care of women, before, during, and after childbirth, and to the needs of infants and young children; and directions have been given as to what must be done in all those serious emergencies and accidents to which frail humanity is so liable, and which often demand instant at-

tention at the risk of life itself. During the anxious time of waiting for the doctor, it is hoped that suggestions and guidance may be found in the following pages which will be of real help and service in saving life.

Sexual subjects, out of consideration for the opinions and feelings of a large class in the community, have been treated in a companion volume, entitled "Sexual Health." This work is not complete without that, and it is hoped that the teachings there contained will gain a wider circulation and be extended by parents to a larger number of the rising generation, because of the separate form in which they have been presented.

In conclusion, the author hopes that his work may be found safe, practical, and helpful. Its directions are definite; the means of cure adopted are specifically designated in the list of medicines and in Chapter XIX., and no others than those mentioned should be used; and except as antidotes to some poisons, great care has been taken to advise nothing which, if used as directed, could involve any risk of harm, even in careless hands.

How much of the book is the work of Dr. Laidlaw can never be known; for although very little of the language is his, his influence, or the results of his revision, can be seen on almost every page; and it may safely be said that but for the long intimacy with him that it has been the author's privilege to enjoy, and the results of his rich experience freely communicated, this work could hardly have been written in its present form.

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INTRODUCTION.

THE PLAN OF THIS BOOK—THE LAWS OF HEALTH.

WHEN a person falls sick, the first thing to do is to find out, if possible, what is the matter; then, except in the rare cases of great urgency, what caused the trouble, and then, what is the best means at command for aiding nature in the work of restoration to health. In order to find out what is the matter, one must familiarize himself with the signs of the various diseases to which flesh is heir, by studying descriptions of those diseases till their symptoms are sufficiently familiar to enable the student to recognize and classify them and name the disease to which they belong.

With regard to the more simple diseases, such as it is safe for an unprofessional person to treat at home, that study of their signs and symptoms should be undertaken by a careful reading through of the present volume, for only in this way will the amateur physician be enabled to unerringly turn to the article needed in the presence of sickness, and find out what to do.

In cases where symptoms are presented by the patient which do not seem to belong to any particular disease,

or belong to some disease which is unknown to the prescriber, the first thing to be done is to turn to Chapter XX., and see if the symptom can there be discovered. If so, refer to the medicine named, in its place in the preceding chapter, and if it seem adapted to the case, give it in the strength indicated and in accordance with the directions given at the opening of Chapter XIX.

If the symptoms of the patient cannot be classified, met, or explained by either of these methods; or if the treatment advised seem to be unsuccessful; or if any other occasion for doubt or uncertainty arise, send for a physician at once. Something may have escaped you which a professional eye will see at a glance, or the symptoms may indicate the beginning of some disease thought too serious for introduction into so elementary a treatise as the present, or some medicine may be required to which no allusion is made in these pages, or even a different strength or quality of exactly the same medicine you had selected.

But if you are satisfied that you see indications for some particular medicine, be very careful to administer it only in the strength and dose indicated in Chapter XIX. The strength of medicines in different preparations varies vastly, and a medicine that may be advised in a certain dose in this book, might become a very dangerous agent if taken in a different preparation or dose. Physicians accomplish much by varying the strength and dose of medicines; but this book is not written for physicians, and the author can only hold himself responsible for the exact doses indicated.

Whatever the disease to be treated, and whether by

the domestic prescriber or by the trained physician, the last chapter on the care, diet, and nursing of the sick should be read, and its directions carried out in so far as they are applicable to the case in hand, unless the physician sees best to alter or amend them under the peculiar circumstances.

But all these directions are intended for sick people, and throughout the following pages the causes of particular diseases are pointed out in a way that will serve to aid persons in avoiding such diseases. A few words are needed on the subject of health in general, with a view to aiding those who are well in retaining the precious blessing of sound bodies, and in avoiding those blunders and vices which have brought sickness and suffering to so large a proportion of the human family. For sickness, if not due to accident, or to the wrongdoing of ancestors, is brought on us by our own ignorance or our own vices; and the proportion of diseases chargeable to accident and heredity is very small.

Health is proportionate activity of all the powers and faculties of body and mind.

Activity implies use, freedom, and waste.

Use is secured by exercise of body and mind.

Freedom is secured by properly clothing the body, and removing hindrances, internal or external, to the performance of any function.

Waste demands repair, which involves both the supplying of material and the affording of opportunity for it to be fitted into the place of that wasted; that is, it demands both food and rest.

It may seem a strange thing to say, and yet it is true,

that this matter of physical exercise is very poorly understood. There are those who fancy that unless they have "broken the record" in some athletic sport, gone through all the contortions on all the structures and instruments of the gymnasium, or swung Indian clubs and dumb-bells for an hour every day, they have not taken proper exercise; while, on the other hand, there are those who think a lifeless saunter of two or three squares is an abundant offset for a whole day of study or sewing in a closely shut room. Exercise means neither the one thing nor the other. It means simply the using of every member and organ of the body to such an extent as will distend its vessels with fresh blood sent through at a sufficient velocity to detach and carry away worn-out tissue. This involves a sufficiently violent exertion of the body, as a whole, to increase the ordinary strength and frequency of the heart-beats, to deepen the breathing, and thus to both mechanically agitate the organs of the abdomen through deeper breathing, and physiologically increase their activity by increasing the demand for food.

The organs of the body are mutually interdependent. We all use some few of them more than the others in our regular daily duties, and the object of exercise is to bring the less-used organs into play, that they may the better sustain the organs which to us individually appear more important. By this means we distribute nourishment, discharge waste, and maintain that proportionate activity of the whole body which is health. But ten minutes a day, or twice a day, wisely spent in active, vigorous exertion, aimed more at exciting and enlivening

the vital organs, than at strengthening the muscles, and combined with a rational mode of life in other respects, will accomplish all that is needed. The man who, already exhausted by wearing brain-work, expects to find recuperation in exhausting gymnastic exercises, will find that he is only burning his candle at both ends, although his plan, doubtless, will provide his brain with better blood, richer in nourishment than he would otherwise be able to send to it. But it is to be noticed that for the man whose daily duties involve abundance of physical exertion, health requires a certain amount of daily brain exercise of a sturdy and serious character, as certainly as it requires muscle exercise for the brain-worker; and also that the amount of exercise here advised is but one among a number of elements which must enter into the daily plan of life, if health is to be maintained.

Freedom of the body involves a good many considerations. Dress is one. With regard to the mechanical impediments to muscular activity, the woman's dress is open to criticism more than the man's, not only on account of the compression at the waist and consequent fixation of the abdominal muscles upon whose motion depend, among other things, the activity of the digestive function and the support of the womb; but also on account of the weight, length, and form of skirts, which cling about the legs, drag upon the abdomen and hips, and expose a broad surface to every wind. All these things are hostile to freedom of the body; and hence to health, but they do not by any means end the catalogue of objections to the prevailing style of dress among women.

The length of skirts is such that it is impossible to go out on a wet day without gathering dampness from the sidewalks, to be disposed for some time about the comparatively unprotected ankles. Many of these points will be treated more at length in the body of the work, as will also the habit of wearing flannel next the skin and applying heavy chest-protectors in winter, by both of which plans the freedom of the skin to act is taken from it, and health is risked or sacrificed by transferring from the skin its proportion of the body's activity and assigning the work of that vital elastic organ to dead, insensitive wool.

How to escape the bonds of habit and fashion, and gain the freedom in these respects which is essential to the most perfect health, is not easy to say. If fashionable women could be prevailed upon to look to Constantinople, instead of Paris, for their models, great good might result; but a large gain could be made, without the sacrifice of a single point of external appearance, by the adoption of the modern "dress reform" garments. With regard to the wearing of flannel next the skin, if that habit be one of long standing it can only be changed safely by beginning in warm weather and toning the skin up to its proper work by the use of frequent cold baths. For persons advanced in life the change is not advisable.

But we do not limit our interference with bodily activity to the skin and the muscles. The internal organs are hampered, clogged, and paralyzed by the injurious substances we take in by nose and mouth, or by the excessive quantities we consume of things not harmful

in themselves. For fear of a little cold we fill our lungs with vitiated air which hampers them in their work. We deaden our nerves and paralyze our hearts by tobacco, either consumed by ourselves or our neighbors. We dose ourselves with patent medicines, opiates, cathartics, and alcohol, and expose ourselves to malaria, sewer-gas, and other contaminating influences, and then when we fail to live out half our days, we talk about "mysterious providences" and the "expectation of life," and forget that our own voluntary interference with the vital processes in our bodies is what destroys health and life in the vast majority of instances. For diseases, germs, and even accidents, would have vastly, inconceivably less power to harm us if we were to do all that in us lies to keep our bodies in the condition and at the tasks designed for them by nature.

Freedom of bodily activity implies also the clearing away of the waste and *débris* of the physiological processes, and this means attention to the skin, bowels, and kidneys. Attention to the kidneys means giving the system sufficient water to keep in solution all the waste matters that should pass off at this outlet. The majority of persons drink too little water and should bring their daily average up to about six glasses, so that about three pints of perfectly clear urine shall pass them during each twenty-four hours. The bowels, too, must receive attention. Usually their demands are not so imperative as is that of the bladder, and inattention to the demand, when it comes, is apt to induce an insensibility which is the first stage of habitual constipation—an evil leading to many others, and in some cases to death itself. At-

tend to the first admonition that a stool should be passed. If you are engaged in regular pursuits have a regular time for this purpose and adhere to it rigidly, making it a point to have the movement at that time, inclination or no inclination. The will can often induce a movement, under favorable circumstances, within, at most, half an hour, regardless of desire.

The skin, too, must be freed often from all clogging deposits, whether originating in or outside the body, if it is to actively perform its very important part in the work of the body. Good authorities estimate that the skin discharges from the body more than the bowels, the kidneys, and the lungs put together. Most of this discharge is water, but a considerable part is solid, and is deposited on the surface of the body by evaporation. A daily bath is little enough attention to give to this discharge and is best taken before breakfast, but may be taken before going to bed, provided it never comes within two hours and a half after a meal. A sponge-bath will answer every purpose, and should be taken in water of such a temperature that a few moments' brisk exercise after it, and before dressing, will occasion a feeling of warmth and vigor, without the necessity of resorting to the barbarous plan of rubbing off the outer layer of the skin with a coarse towel. What rubbing the skin needs should be given it by the wet hand, and not by the dry towel. The outer layer of the skin is essential to health, as is also the oil that is spread upon it by the glands distributed all over the body. If these be rubbed off by violent friction they have to be replaced, and during this process the skin is not in its best condition.

The temperature of the bath must be regulated by each person according to his feelings ; but a brief cold bath should not be above 80° F. for a healthy man, nor should it run below 65° F. under any circumstances. Warm baths can be taken for longer times, and a warm bath of 95° F., in which a person lies for thirty minutes by the clock, completely covered and perfectly quiet, will be found very restful and soothing to one who is so tired that he finds difficulty in sleeping, and marked nervousness, with perhaps pain, especially in the back. Such a bath should be taken immediately before getting into bed, and about three minutes before the half hour shall have expired, a bucket of hot water should be drawn into the bath. Turkish baths may be used once in a week, or two weeks, but the limit of heat should be 160° F. (140° F. is enough for most people), and the limit of time in the hot room should be twenty minutes, while after the shampoo not less than from thirty to forty minutes should be spent quietly in the cooling room.

With regard to repairing the waste of the body, food—including drink—and rest are essential. But if sufficient water be taken to provide for the cleaning of the body by the kidneys, no further liquid food will be absolutely necessary. The body is made up of a number of different substances, which are classified into groups corresponding to the foods by which they are specially nourished. Thus we have mineral substances, as in the teeth and the major part of bones ; fat, which is invariably and constantly present in a few situations, and is generally distributed over the body in health, but in varying quantities ; and albumen, which in many forms and

combinations constitutes the chief part of the solid flesh. To supply the waste of these and other substances of the body we find it necessary to use a variety of foods; for although there are foods which contain every element needed by the body, there is none which contains every element in the proportion in which it is needed for food. For example, if we were to live exclusively upon meat we should be obliged to eat far more albumen than we needed in order to get an adequate supply of the substances which go to form nerve-force, heat, fat, and bones; while, on the other hand, if we were to limit our diet exclusively to bread, we should be overloaded with starch and mineral salts before we should have taken enough of albumen to supply the waste of the muscles and internal organs. But by eating a portion of meat with one of bread, and adding fresh vegetables and water, we supply every need of the body without overloading the stomach. It is undoubtedly possible to live and work on an exclusively vegetable diet, and by adding milk, butter, and eggs from the animal kingdom, a very satisfactory dietary can be formed; but experience seems to show that a larger admixture of animal food gives the best results in working power and health.

In the last chapter of this volume will be found a dietary for the sick; but for the strong and healthy this may be modified by transferring to the allowed list a number of articles not good for invalids. Salted meats and sausages, cheese and edible vegetables, for example, may be taken in accordance with the appetite, if no ill results can be traced directly to these articles. The

author is of opinion, however, that the list of articles allowed and forbidden, as arranged by Moses and recorded in Leviticus, Chapter xi., is of great value to-day, although that part of it which seems to have special relation to the climatic conditions of Palestine and vicinity may be modified with advantage for America. For example, the oyster is placed among forbidden things by Moses, undoubtedly because a wholesome oyster could hardly be found on a table in Turkey in Asia. But the oyster is, in many parts of America, one of the best of foods. Pork, however, which is also on the forbidden list of Moses, might well be on that of every man who desires to have a clean body and a clear mind, and we might with advantage leave the hog to his legitimate business of scavenger.

The healthy man may safely trust his appetite in the selection of his food; but if he be a driving, restless American, he is not so safe in trusting his inclination in the manner of eating. He is too much disposed to hurry. Meals, to do good and maintain the body in health, must be eaten deliberately and thoroughly masticated. On this account it would be well to use more extensively, than is common in this country, the plan of serving meals in courses. Sit down deliberately, join conversation with eating, masticate thoroughly, drink or not as you will with the meal, but never wash down a mouthful of food with the draught; do not eat when very tired, rest half an hour after the meal, put the heaviest meal after the close of the day's work, and your ill health will not be traceable to your habits of eating, nor yet to your food, provided you limit your-

self to moderate meals made up of the articles allowed above, and in the last chapter of this work.

But the body does not find all needed nourishment in food. It must also have oxygen, which must be supplied by pure air, and magnetic force (for lack of a better name), supplied by sunlight. Every person who would maintain health must spend more or less time every day in the open air, and spend it during the hours that the sun is above the horizon. And in addition to this he should see to it that both sunlight, and, unmistakably, fresh air find free access to his living rooms. Air taken from the cellar will not answer, nor will air sucked in through a furnace from some stinking alley or the neighborhood of a sewer ventilator. Nor can the air in rooms be kept wholesome if they be over a cellar that is damp, foul, or unventilated. Pure air in abundance, and not above 70° F. in winter-time, and plenty of sunlight, must join with food in the nourishment of a healthy body.

But the body is not nourished by what goes into the stomach, but by what is taken out of the intestines by the blood, and located in the various organs and tissues. Work of any kind in the body, including thinking, is simply destruction of tissue; weariness is the hunger of special organs, and rest allows of the feeding of those organs by the blood. And the time of rest must exceed the time of work. Even those most active of organs, the heart and lungs, rest longer between every exertion than they work in that exertion. Change of employment gives rest, but not sufficient for the needs of the body. The absolute idleness, if it may so be called, of sleep is essential to health. The amount of

sleep required by different persons seems to vary, but whether this variation is due to habit or to natural conditions is difficult to say. Somewhere from seven and a half to eight hours seems to be the average demand, but many get along with less, while for others nine hours is none too much. The young and the weak require more sleep than do the adult and strong.

But needed rest cannot be condensed into the hours of sleep. For hard-working persons, especially brain-workers, a half hour on the back in the middle of the day, and change of employment, best if combined with recreation and fresh air, and a long vacation during the hot weather—a time when Nature withholds the magnetic supplies necessary for continuous exertion—all these things are essential for the man who would do the best work and yet maintain a high standard of health.

The above principles apply as well to infants and children as to adults, but in their application some changes have to be made, owing to difference of the bodily functions and powers in the very young. In the first two chapters following this introduction, the application of the principles of hygiene to children will be found ; but for the sake of giving them especial emphasis, certain rules will be condensed in this place, to which no exceptions can safely be made by any but a trained physician.

1. NEVER use Soothing Syrup.
2. NEVER use opium, paregoric, laudanum, rhubarb, purgatives, or any patent medicine or nostrum containing these articles, or whose component parts are not stated.
3. NEVER use a nursing-bottle having a RUBBER TUBE.
4. NEVER use a white rubber nipple.

5. NEVER nurse or feed a child at a shorter interval than two hours, and never between 11 P.M. and 5 A.M.

6. NEVER nurse a child for crying.

7. NEVER feed a child any starchy food (such as potatoes, arrowroot, farina, bread, rice, and the like) until it is at least a year old and has some teeth.

8. NEVER wash a child with alcohol or with any liquid containing alcohol.

9. NEVER allow flannel, blankets, or other articles of wool to be worn next the skin, either of infants or other persons, till the prime of life is past.

10. NEVER encourage a child in learning to walk.

11. NEVER use a baby carriage unless the infant can lie in it as flat as in a bed.

12. NEVER let an artificial light shine on an infant from one side, even if it be asleep. Always let the light shine equally upon both eyes, and preferably (if any light must be in the room) from above the head.

13. NEVER punish a child under two years of age in any way, or for anything.

And two more rules, which will apply to older persons :

14. NEVER do anything, beyond taking a warm foot-bath, to bring on the monthly period of women.

15. NEVER trust a medical advertisement of any kind, or a physician who advertises, or take any patent or proprietary medicine, or nostrum of unknown composition, for any purpose whatever.

CLASSIFIED LIST OF ALL ARTICLES REQUIRED BY THIS BOOK.

I. HOMŒOPATHIC PREPARATIONS.

(a) THOSE MORE FREQUENTLY NEEDED.

Name.	Abbreviation.	Strength.	Form.
Aconitum napellus	Acon.	3d centesimal	No. 20 globules
Æsculus hippocastanum.	Æsc.	Mother tincture	" "
Antimonium tartaricum.	Ant. tart.	6th centesimal	" "
Apis mellifica	Apis.	3d "	" "
Arnica montana	Arn.	Tincture of root	Liquid.
Arsenicum album	Ars.	12th centesimal	No. 20 globules
Belladonna	Bell.	3d "	" "
Bryonia alba	Bry.	1st decimal	" "
Calcarea carbonica.	Calc. carb.	6th centesimal	" "
Camphora	Camph.	Mother tincture	" "
"	"	" "	Liquid.
Capsicum annuum.	Caps.	2d centesimal	No. 20 globules
Carbo vegetabilis.	Carbo. veg.	6th "	" "
Causticum	Caust.	6th "	" "
China or cinchona	Chin.	Mother tincture	" "
Chininum arsenicosum.	Chin. ars.	3d centesimal	Powder.
Cimicifuga racemosa.	Cimicif.	Mother tincture	No. 20 globules
Colocynthis	Colo.	2d centesimal	" "
Dulcamara	Dulc.	3d "	" "
Gelsemium	Gels.	Mother tincture	Liquid.
Hamamelis	Ham.	" "	No. 20 globules
Hepar sulphur.	Hep.	12th centesimal	" "
Ipecacuanha	Ipec.	3d "	" "
Mercurius solubilis	Merc.	6th "	" "
Mercurius corrosivus	Merc. cor.	3d "	" "
Mercurius proto-iodatus.	Merc. prot.	1st "	Powder.

I. HOMŒOPATHIC PREPARATIONS.—*Continued.*

Name.	Abbreviation.	Strength.	Form.
Nux vomica	Nux v.	2d centesimal	No. 20 globules
Phosphorus	Phos.	6th "	" "
Pulsatilla	Puls.	Mother tincture	Liquid.
"	"	3d centesimal	No. 20 globules
Rhus toxicodendron ..	Rhus tox.	6th "	" "
Sanguinaria	Sang.	3d "	" "
Sepia	Sep.	6th "	" "
Silicea	Sil.	12th "	" "
Sulphur	Sulph.	12th "	" "
Veratrum album	Verat. alb.	3d "	" "
Viburnum opulus	Vib.	Mother tincture	Liquid.

(b) THOSE LESS FREQUENTLY REQUIRED.

(NOTE.—*Those medicines marked * are required only for children.*)

Name.	Abbreviation.	Strength.	Form.
Acidum aceticum	Acet. ac.	3d centesimal	No. 20 globules
Antimonium crudum ...	Ant. crud.	3d "	Powder.
Baryta iodide	Bary. iod.	3d "	"
Belladonna	Bell.	Mother tincture	Liquid.
*Borax	Borax.	3d centesimal	Powder.
*Calcarea iodide	Calc. iod.	3d "	"
*Calcarea phosphorica ..	Calc. phos.	6th "	No. 20 globules
Cantharides	Canth.	6th "	" "
*Chamomilla	Cham.	3d "	" "
Chelidonium	Chel.	1st "	" "
*Cina	Cina.	1st "	" "
Cocculus	Coccul.	3d "	" "
Coffea cruda	Coff.	6th "	" "
Dioscorea	Dios.	Mother tincture	" "
*Drosera	Dros.	3d centesimal	" "
Glonoine	Glon.	6th "	" "
*Graphites	Graph.	12th "	" "
Hepar sulphur	Hep.	3d decimal	Powder.
Hyoscyamus	Hyos.	Mother tincture	Liquid.
Iris versicolor	Iris.	2d centesimal	No. 20 globules
Kali bichromicum	Kali bich.	3d "	Powder.
Lachesis	Lach.	9th "	No. 20 globules

I. HOMCEOPATHIC PREPARATIONS.—*Continued.*

Form.	Abbreviation.	Strength.	Form.
Lycopodium	Lyc.	12th centesimal	No. 20 globules
*Magnesia carbonica....	Mag. carb.	6th “	“ “
*Mephitis	Meph.	12th “	“ “
Nux vomica	Nux v.	Mother tincture	Liquid.
Opium	Op.	3d centesimal	No. 20 globules
Petroleum	Petrol.	3d “	“ “
Phytolacca	Phytol.	Mother tincture	“ “
Podophyllum	Podo.	“ “	“ “
Rhus toxicodendron . . .	Rhus tox.	“ “	Liquid.
Rumex crispus	Rumex.	“ “	“ “
Sabina	Sabin.	“ “	No. 20 globules
Secale cornutum	Secal.	“ “	“ “
Spigelia	Spig.	3d centesimal	“ “
*Spongia tosta	Spong.	3d “	“ “
Staphisagria	Staph.	Mother tincture	“ “
Tabacum	Tabac.	“ “	“ “
“	“	“ “	Liquid.
*Thuja	Thuja.	“ “	“ “

II. ORDINARY DRUGS AND MISCELLANEOUS ARTICLES.

(NOTE.—Articles marked * are required only for children.)

Name.	Remarks.
Alum, burnt.	
Ammonia water.	
Arnica tincture	For external use only, diluted with water.
Balsam copaiba.	
Balsam of Peru.	
Borax	For external use only.
*Boracic acid	Put up in powders of five grains each.
Caustics	Either the caustic potash, a small stick, or the pure muriatic acid, or the lunar caustic in sticks. The two former should be kept in glass-stoppered bottles; the latter must be protected from the light.

II. ORDINARY DRUGS AND MISCELLANEOUS ARTICLES.—*Continued.*

Name.	Remarks.
Castor-oil.	Use only as directed.
Chloral hydrate.	Keep in a bottle and use only as directed. A dangerous medicine.
Collodion (flexible).	
Corn plasters.	Of felt, with a hole in the middle.
Cotton wool.	
Court plaster.	
Dentifrice.	Hanchett's "Saponaceous."
Epsom salts.	
Flax-seed.	Both ground for poultices, and unground.
Fruneau's papers.	
Glauber's salts.	
Glycerine.	
Hamamelis extract.	Hurlburt's or Pond's, or other good ex- tract of witch-hazel.
Ice-bag.	Get one at least fifteen inches long.
Iodine tincture.	For use must always be reduced by at least an equal portion of alcohol.
Iron hydrate.	Must always be freshly prepared at the time of using it. It is made by mixing tersulphate of iron and magnesia solu- tions, which can be kept on hand.
Lavender essence.	A drachm of the oil to two ounces of alcohol.
Laudanum.	Use only as directed. A dangerous medi- cine.
Lime-water.	
Linseed-oil.	
Magnesia-water.	"Solution of the carbonate of magnesia."
Mercurial ointment.	Mixed with an equal quantity of vaseline.
Mineral waters.	"Bethesda," "Poland," and "Clysmic."
Mustard leaves.	Ground mustard is to be found in every household, of course, but the "leaves" are better than the home-made mustard plaster.
*Nipple liniment.	Halliwell's.
Nut-galls.	
Oils.	Pure olive-oil, castor-oil, camphorated oil, and oil of pennyroyal, are men- tioned.

II. ORDINARY DRUGS AND MISCELLANEOUS ARTICLES.—*Continued.*

Name.	Remarks.
Pepsin	Fairchild's Essence of.
*Peptogenic milk powder.	Fairchild's.
Peptonizing powders.....	Fairchild's. Sold ready mixed in glass tubes.
Plasters	Besides the "court" and "corn" plasters some "surgeon's adhesive plaster" will be needed.
Platt's Chlorides.	
Potassium, Bromide of...	Keep in a well-stopped bottle, and use only as directed. A dangerous medicine.
Pumpkin seeds.	
Quinine.....	Get sugar or gelatine-coated pills, each containing two grains of the sulphate. Use only as directed.
Saltpetre.	
Soap	The red castile and tar soaps are mentioned.
*Staphisagria ointment ..	One part of ground staphisagria to five of vaseline.
Stimulants.....	Coffee, wine, brandy, or whiskey may be needed in rare cases. Use only as directed.
*Sugar of milk.	
Tannic acid.	
Vaseline.	
Zinc sulphate	Put up in powders of thirty grains each.

Besides the above, a few recipes are given which can be procured in abundance of time if needed, and a number of articles are mentioned which are to be found in every household. A good thermometer, registering up to two hundred and twenty degrees of Fahrenheit's scale, will be found essential. Any article required may be ordered through the publisher, Mr. Charles T. Hurlburt, No. 3 East Nineteenth Street, New York City, with the certainty of obtaining exactly what is wanted, promptly and at reasonable prices.

For doses see Chapter xix.

PART I.

FROM BIRTH TO PUBERTY.

CHAPTER I.

FIRST THINGS.

To begin with, the patient must be born.

For if the wee thing be born alive it is born a patient. The doctor is on hand—the first to greet the new-comer, painfully entering this vale of tears, as he expects to be the last to part with him when crossing the dark river, be that sooner or later.

Perhaps the doctor is not at hand. Carriages have a most inconsiderate way of breaking down at the wrong time, and duties do sometimes seem to clash in spite of all maxims. Physicians are human, too, and sometimes they are sick, or fall into an error in their calculations just when the mamma-to-be wants them most. One doctor, not so very long ago, was sent for to welcome an expected visitor from another world, and coming, thought, after careful examination, that the little stranger would arrive in about three hours. So step-

ping around the corner to secure his already belated dinner, he returned in about half an hour to find the little visitor already in the world, and asserting his preference for his recent abiding-place in unmistakable tones.

So, in case baby comes while doctor is not there, what is to be done? Mamma certainly can't wait doctor's convenience, for Nature, not she, selects the hour of birth, and as certainly something must be done in most cases, and done at once,

First, Keep cool.

Whatever else you do, always keep cool, speak quietly, move deliberately, think what you are about, and try to have a reason for everything you do. Never scold or be impatient, and never be in a hurry. Nature is in charge of the mysterious process, and nature never blunders.

It is always safe to trust to nature, if you can be sure that nature's plan has suffered from no interference. To be natural has been rightly considered one of the most difficult accomplishments, and this is because so much that is artificial enters into our lives that nature's plans can never be fully and freely carried out. If a woman had always lived, dressed, exercised, slept, and eaten in accordance with nature's demands, she might safely leave the birth of her children to nature's care; but if she be a civilized woman, living in this country, in this nineteenth century, it may be taken for granted that she has not invariably followed nature's dictates, and it will therefore be wiser both to learn as much as she may herself about the plan of nature with regard to

child-bearing, and also to secure, if possible, the attendance of one more skilled in such matters than she can reasonably be expected to be. Besides, frail humanity is always liable to accident, and nature never does for us what we can do for ourselves. She will bring the young immortal into the world, but she will neither wash, dress, nor feed him when there. So something must be done.

Let us suppose, then, that baby has spent the allotted time in preparing for his *début*, and is now making the painful and difficult entrance upon the stage of terrestrial life. Before, during, and after this wonderful entrance the mother will surely need much wise and careful attention; but of that it is not the intention to speak in this place, as it can be more appropriately considered in another portion of this volume, which will, of course, have been studied in anticipation of the event now under consideration.

Baby will be anywhere from half-an-hour to twelve hours in making his *entrée*, and until his head or some other member appears, there will be nothing which the unprofessional attendant can do to assist nature in regard to his progress. The mother will monopolize attention, and if the labor should be protracted beyond six or eight hours, no surmountable obstacle should be allowed to stand in the way of securing the advice of an experienced person. Cases in which the head is too large to pass through the pelvic canal, or the body becomes twisted and wedged in the passage, cannot be suitably treated by those for whom this book is written.

It is to be hoped that the expectant mother has learned from her physician whether she is probably carrying more than one child or not, and in what position the baby is located in the womb. This will prevent surprises and give the attendants a hint as to the manner in which they can best assist nature's efforts by attention to the parts of the baby first in the outer world.

In the great majority of cases it is the back part of the baby's head that is first seen, and this usually points forward with relation to the mother's body. It is better to allow it to take its own course, at least until the greater part of the head is fully exposed. Then the head may be gently bent backward (with reference to the baby's own body) so as to disengage the chin at the earliest possible moment. The mother will feel greatly relieved as soon as the head of the child is fully in the air and the soft parts of her body are allowed to slip under the baby's chin.

Usually the baby's entrance is arrested for a few moments at this point, and sometimes he will begin to breathe and cry right there, in spite of the pressure still maintained upon his little chest.

Now something very important is to be done, and that is to examine the child's neck to see if the navel-string be caught around it. If it is, it should be disengaged at once.

See which end of the navel-string goes to the child, and be careful not to pull on that end. Grasp the other end through a napkin, and draw upon it gently, and if enough of it can be pulled down to slip the loop over the child's head, all can easily be made right. Care must

be taken not to break the string, and if it be found impossible to draw down a loop large enough to slip over the child's head, it may still be practicable to so loosen the string that it may be pressed over the shoulders and thus allow the child to slip through it.

If the child should already be crying and breathing, it will then be safer to tie the navel-string in two places, about an inch apart, with strong thread or narrow tape, and then to cut the string between the two tied places. Tie tightly, so as to prevent blood from running out through the string. It must be tied in two places because, when cut, if not tied, the mother would lose blood from one end, and the child from the other, and in either case serious consequences might ensue.

Remember that this navel-string is both windpipe and gullet to the unborn babe. In its capacity of gullet it may not be essential to the child who is partly born, and likely to be fully in the world within less than an hour. But in its capacity of windpipe the navel-string is of the utmost importance to the baby until he has given unmistakable evidence of knowing how to use the windpipe that runs to his nose and mouth.

So save the navel-string at this juncture, if possible, but do not allow it to choke the child on the one hand, or on the other to be either compressed or strained, or to draw on the baby's navel at one end, or on the mother, through the after-birth, at the other. A little later in the birth, in case it should be necessary to slip the navel-string over the shoulders, after the latter have been delivered, it may be possible to gently draw the baby's arms through the string, and thus lessen the tension

upon it. Do not attempt this unless it seems really necessary, and remember, in trying to do it, just how the baby's arms are jointed, and swing them over the breast and not across the back.

During the short period of rest that often occurs as soon as the head is fully delivered, it will be sufficient to support the weight of the head, and with a soft cloth to wipe off the mucus from the nose and mouth, and possibly even to gently swab out the mouth. This will remove any obstructions to the child's breath, which it is desirable to have enter the lungs at the earliest possible moment. But do not attempt anything more than this.

In supporting the baby's head try to keep its weight from pressing too much upon the mother's flesh between the vagina and the bowel, as this part is often torn in labors, with bad consequences.

And especially do not try to help the labor by drawing the child into the air. The most difficult part is now past, but nature still has the case in charge, and can be trusted to finish the birth in good season. When the hips have been delivered, the birth of the baby's body may be considered complete, and if the legs are left still in the vagina they may be gently withdrawn, but in doing this no traction must be put upon the navel-string. Lay the child down in such a way that this cord is kept quite loose and free from strain or much twisting.

In cases where the face appears first in the air there will be no occasion to materially modify the suggestions already made.

When the hips or feet of the baby are the parts first seen, the condition of things is much more unfavorable for the little stranger. This is because, from the nature of the case, the navel-string must be pressed between the baby's head and the bones of the mother. As the baby's head is its largest and most inflexible part, requiring all the room there is in the passage-way through which it must enter the world, if the head comes out last it must, in a great many cases, stop the flow of blood through the navel-string, and in this way cause the suffocation of the child. There is very little that the inexperienced attendant can do to save the child in such a case. In fact, in those cases where it is the mother's first child there is very little that anybody can do. Dr. Robertson says he does not remember to have saved the baby's life in a single instance where it was the mother's first child and the feet were the first parts delivered.

But first births are particularly unlikely to be of this character, and where a mother has had children before, the parts are softer and more relaxed, and hence do not squeeze the navel-string quite so rigidly. For the same reason, if the hips come down first, with the legs drawn up on the body, the chances are better, because the hips and legs together may stretch the mother's soft parts so much that the string will not be pressed upon harder than it can bear.

In such cases the expert accoucheur will expedite the delivery, and thus often save the life of the child; but such a thing is not to be attempted by anyone but a physician.

One thing can be done, however, and it has

saved many a baby's life. Air can be admitted into the vagina. As soon as the navel-string is pressed hard enough to stop the flow of blood in it, the child will ordinarily make efforts to breathe. If it be successful in these efforts it will live ; but if not, of course, the struggle must be given up before it is fairly begun. If, then, two fingers of the attendant can be passed well into the vagina, beside the baby's body, they may leave, beside and between them, a sufficient passage for air to reach the child's nostrils. This plan must always be thought of, and put in execution at once, in all cases of birth hips first, especially if the baby is seen to be struggling for breath.

Another condition requiring immediate attention, if the child's life is to be saved, is that in which the navel-string itself is the first part to be seen. When this comes through the canal before the head, the danger is precisely the same as in the last case. The treatment of this accident will be given, however, in considering the management of the mother during labor, as it will come in better there, although the only danger is to the child.

And now the little fellow lies there, dirty and helpless as he can be, yet filling everybody about with something of the joy that is the all-absorbing emotion in the mind of the mother. The doctor has not put in an appearance yet, and the little fellow is asserting his citizenship in the world, and his thorough dissatisfaction with his environment, by lusty cries. He has just arrived from a right warm place, and he feels chilly in a temperature that the rest of us find uncomfortably warm. He must be accustomed gradually to the change, and

must be given the advantage of an unobstructed skin ; in short, he must be taken to a room too warm to be suitable for his mother in her present condition ; and he must be washed.

But just at present he is still attached to his mamma by the navel-string, and the doctor is not at hand to release him. Well, he can't cut a string any better than another person.

First, then, lay the baby in a soft blanket, upon which a linen rag has been placed to keep the woollen from his skin, and examine the cord to see if it has stopped beating. As a rule, the inexperienced attendant would do better not to cut the navel-string until the beating in it has entirely ceased and the child is unquestionably breathing like other folks. The child's cries are sufficient evidence of breathing, and beating in the cord can be easily felt by lightly pinching it between the thumb and finger.

The cord should be cut without tying the part that goes to the baby. The part that goes to the mother had better be tied, for in case another child is still in her womb, serious consequences to it might follow loss of blood through the navel-string. Tie the cord, then, about four inches from the baby's body, with strong thread or silk, or a bit of narrow tape, and cut it with blunt scissors, on the baby's side of the tied place. If the baby's end of the string bleed now, it is all right, and will save the baby from an early attack of colic. After blood has ceased to flow from the string, strip it through the fingers once or twice and wrap it in three or four thicknesses of old muslin, and lay the baby

in a blanket till all is in readiness for his bath, and the necessary attention has been given to the mother. If there should be a marked swelling about the insertion of the cord, as if the baby's intestines were crowding into it, the cord should be gently stripped toward the body and tied tightly with thread or tape about an inch from the navel.

After baby has had his bath the navel-string can be dressed as follows: Take a piece of old muslin, and fold it so that it shall be two thicknesses and about five inches square. Cut a small hole in the middle of this pad, and through it pass the remains of the navel-string. Wrap the muslin loosely about the string, and around the whole take a few turns with a narrow strip of muslin, as if you were doing up a sore finger. After four or five days the navel-string will fall off, and then a simple rag covered with vaseline may be laid over the navel, under the binder, to prevent irritation by friction.

But now suppose the little stranger neither cries nor breathes. That is not such an unusual thing, and may result from several causes. The baby swallows before he is born, and he may have filled his throat with mucus. Turn him face downward, and with a single thickness of a handkerchief thrown around the little finger, pass that into his mouth and wipe off the root of his tongue. The baby may have had an internal injury preventing him from breathing, or compression of the navel-string, or premature detachment of the after-birth may have caused his suffocation. If the baby's skin be dark or purple, the trouble is probably with the nerves,

and baby needs a shock. This may be given by turning him quickly bottom up, and then head up, once or twice, or by slapping the skin, or by pouring very cold water on his back for a moment—even ice-water may be used—or baby may be dipped for a moment each, first into cold water and then into warm. All such efforts should be made without haste, but without delay, and one after another should be tried until the child breathes or cries, and all should be done before the navel-string is cut, but without twisting or stretching it.

If, on the other hand, the child be white and do not breathe, he ought to be at once placed in quite warm water, so that his whole body is covered except the face. Before the water is at hand the child's back may be rubbed gently downward from the neck, and if, after a few moments, that seem to do no good, it would be well to breathe into his mouth. To do this, fill your own lungs rapidly several times, to have the air in them as pure as possible, lay one thickness of handkerchief over your mouth to prevent the air from rushing too forcibly into baby's lungs, pinch baby's nose to prevent the air escaping that way, and breathe into his mouth gently, repeatedly, and not too long at a time—baby's lungs will not hold as much air as yours. Then press on baby's chest to expel the air again, and repeat as nearly as possibly like natural breathing. These rubbings and the artificial breathing should be continued after baby is in the warm water. If the navel-string have quite ceased beating it may be cut, for after it has once stopped it will not begin again. Hope of saving the child, and efforts to make him breathe, should not be given up for two

or three hours. Under all circumstances see that the child is kept warm, except, of course, when it is desirable to give a cold shock, as described above.

If after working ten or fifteen minutes with the child he still does not breathe, put a single globule of *Camphor* and one of *Capsicum* on his tongue, or hold some *Spirits of Camphor*, or, better yet, *Spirits of Ammonia*, to his nose. If these measures be not sufficient, give an injection of cold water containing a little castile soap. From four to six tablespoonfuls of water will be sufficient.

CHAPTER II.

FIRST ATTENTION.

Now, after the baby has been severed from the mother, is breathing all right, and the mother's immediate wants have been satisfied, it is time to wash and dress the little fellow. Warmly wrapped in a soft blanket (between which and the skin, however, an old muslin or linen cloth should be interposed) he should be taken to another room, previously prepared by having it warmed up to about 80° F. Two or three objects will be gained by this plan. In the first place, the baby needs a warm air, while for the mother a cooler temperature is desirable. Then the child's cries and the manipulations of his nurse will both be distressing to the new mother, who needs perfect quiet; and again, the person in charge of the baby and the one in charge of the mother can both work better if alone. In fact it is better to keep baby entirely out of his mother's sight until he is washed, for it sometimes gives a mother a shock to find what an ugly little thing it is that she has brought into the world, covered with blood and mucus, especially if the child's head have been deformed in its passage through the canal, as happens often enough, although the deformity usually lasts but a short time.

Before washing, the child's body should be well rubbed with lard, vaseline, or sweet-oil, without which it will be very difficult to remove the substance which covers the skin. Then wash with warm water (95° F.) almost at blood heat, and a little pure soap. Do what rubbing is necessary with the water and not with the towel, and dry the skin more by absorbing the water in a soft, well-warmed towel than by rubbing it off. The skin is very delicate, and there is nothing superfluous about it except dirt. And be very particular not to have any alcohol, spirits, perfumes, or anything, except a *little* good soap, in the water. Alcohol can be absorbed through a child's delicate skin, and many an innocent babe has been kept almost constantly drunk for the first few months of his life by those who would be shocked at such a state of things if they knew what they were doing.

While the baby is being washed he should have special attention given to his eyes. In fact, care should be taken from the first not to have too bright a light strike the little fellow's eyes while they are in the delicate condition shared by all the organs at birth. But in the bath it will be well to especially wash the eyes in a little warm milk diluted with water. If the mother have been suffering from an irritating discharge from the vagina before the labor, the child's eyes should then be washed in a little dilute *Boracic Acid*. Get the druggist to put up a few powders of *Boracic Acid*, of five grains each. Dissolve one of these powders in two tablespoonfuls of hot water, and while it is still quite warm bathe the child's eyes with it. This is only to be

used in case the mother has had an irritating discharge, or if, later, the child's eyes seem inflamed and have a tendency to gum together. In such a case wash off the gum with warm water and then bathe the eyes with the *Boracic Acid*. Do this as often as the discharge collects in the eye, and at the same time give the child once in two hours a teaspoonful from a glass in which half a dozen globules each of *Pulsatilla* and *Mercurius* have been dissolved in water. Unless this treatment results in speedy improvement lose no time in taking the child to a physician or oculist.

During his first bath baby should be examined carefully to see if anything be wrong with his little body, and especially see if the passages appear to be open. Examine the bowel, which is sometimes closed entirely—a condition which calls for speedy attention. Also notice the urinary passage. Sometimes the foreskin is closed, and occasionally, when it is open, the opening of the tube leading to the bladder, behind the foreskin, is closed. If the passage be closed deeper in, as rarely happens, it can only be known by noticing that the diapers are not wetted. If the foreskin be very long and loose, or if the opening in it be very small, it ought by all means to be cut off, although that need not be done immediately. There can be no doubt that the law of circumcision was given the Jews for sanitary reasons, and that it would be well if the practice were general. Nervous disorders of many kinds, as well as local inflammations, may originate from a foreskin that is too long or too narrow, and unless it can be easily retracted behind the head of the penis, it should be cut off. The

eighth day is as good as any for this operation, which, of course, must be performed by a surgeon. But in any case be very particular to wash thoroughly underneath the foreskin with every bath. And parents cannot be too particular, in entrusting this office to a nurse, to see to it that she is a person who will not teach the young boy to play with or in any way irritate this organ.

If the little babe be a girl, the same examination of the passages should be made, and it would seem almost unnecessary to caution against breaking the membrane that closes the vagina, were it not the custom of a few foreign nurses who have come among us so to do. The mouth, too, should be examined, to discover if the tongue be tied.

The bath for the first few days should be about as warm as above directed, but it may then be gradually made cooler day by day till its temperature is reduced to about 80° F., at or near which figure it may be maintained during infancy. In bathing, as in everything else, endeavor to avoid sudden changes. The new-born child has never experienced a temperature below 100° F., previous to his birth, and should therefore be washed at first in water of blood heat. But it must be gradually accustomed to cold air, and it can best be protected from taking cold by cool baths, which, without chilling the body, require the skin to react, thus giving it tone and power to resist both disease and cold, on exactly the principle by which we strengthen the other organs of the body—the principle, namely, that development depends upon use. Nor should the skin ever be subjected to the vigorous frictions so often advised and so com-

monly practised. Rubbing with the water will do no harm, but the rubbing with a coarse towel to get up a glow removes an essential part of the skin and weakens that organ. This is as true in adult as in infant life. If such frictions be necessary to warm the skin, it shows that the bath was too cold or too long continued. The skin should grow warm by a reaction against the water itself, although there is no objection to stimulating this reaction by exercise. A baby that is regularly bathed in water of 80° F., in a warm room, and is properly cared for otherwise, will be in comparatively little danger of taking cold, even if he be not thoroughly dried after his bath. Our fear of draughts, cold, and dampness, has too often led us to try to protect our bodies from them, and in this way we have removed the stimulus which, had it been allowed to act, would have excited our bodies to protect themselves much more effectually than our artificial methods can possibly do.

But the baby should have been out of his bath long before this. And now he must be dressed in the little garments mamma has so long been industriously preparing, and which have been nicely warmed ready for baby's wearing. And it is certainly to be hoped that none of the garments are intended to be fastened by pins, but that all are provided with tapes for tying. If the baby were given his choice with regard to the fastenings for his clothes, it is almost certain that he would choose anything before pins.

Directions have already been given for dressing the navel-string. Next a bandage (but not of flannel), should be placed around the body, tightly enough to

hold the dressing of the navel-string in place, but neither tight enough to prevent free breathing nor long enough to restrict the motions of the limbs. Of diapers fully six dozen should be provided, so that there will surely always be one ready to take the place of that worn as soon as it is in the least soiled. Nothing can excuse the retention next the delicate skin of an infant, of a soiled diaper a moment after its condition is noticed, and, of course, the soiled skin will be washed in lukewarm water and dried whenever the diaper is changed. Diapers should never be of woollen stuff.

The less clothing put upon the baby the better. Clothes are undoubtedly in large part a concession to, if not an invention of, the evil one, and the innocent little stranger in this wicked world should be hampered by them as little as possible. Keep the baby warm by blankets and fires, but let him have plenty of room in which to kick. Be particular, however, that only linen, or at worst cotton goods, touch baby's skin. Flannel is very irritating to a baby, and may cause convulsions, as it has often been known to do.

At last baby is washed and dressed, and by this time his mother will be very impatient to take him to her arms and give him the first kiss. But baby and mother both need the rest that can only be found in sleep, and they should be allowed thus to refresh themselves. Baby's sole business in life for some months will be sleeping and feeding, and of the two, sleeping stands first both in time and in importance. It will do no harm to put the baby to the breast for a short time at the first interview—he will get no milk,

but he needs none, and it will be good practice, besides acting as a stimulant to the secretion of milk. For some days before birth, perhaps, the breasts have contained a fluid looking somewhat like milk, called colostrum. This is undoubtedly designed to act as a cathartic upon the infant to clear his bowels of what he swallowed before birth. Milk itself does not appear in the breasts till about the second day after birth.

The child needs absolutely nothing before teething, except what he finds in the mother's breasts.

It would be impossible to make that statement too emphatic, of course premising that both mother and child are healthy. Babies usually decrease in weight the first day or two after birth, and at the end of a week should weigh almost exactly the same as at birth. This is nature's own arrangement and nature never blunders. She takes great care in making a man, does one thing at a time, and works slowly. The part of wisdom is to watch her ways and let her alone. For two days baby has plenty to do to learn how to breathe, and bear the cooler temperature in which he must now live, and how to suck, and the only other thing that should be expected of him is the clearing out of his bowels and bladder.

The baby's bowels will usually move soon after birth. If they do not do so within six hours something is probably wrong; and after eight hours, if nothing have passed, it will be well to give two teaspoonfuls of sugar and water, or better, molasses and water. If this do not have the desired effect give an injection of simple cold water, using about four tablespoonfuls. If none of these measures should result in a passage from the

bowels, and the child seem restless and colicky, a globule of *Nux vom.* should be placed on the tongue, followed in six hours by a second. If in all this time the desired result be not attained, a physician should be summoned. Do not give any purgative medicine.

Usually the bowels move about four times a day for the first few months, and then about twice a day for the first year. A baby has no control over his bowel movements for at least the first year of life. The stools for the first two days are darker and more sticky than later.

The infant should be taught to sleep in his own crib from the very first, and that crib should not rock but stand firmly on four posts. It is better for both mother and child that each should have a separate bed, and it is not a good plan to churn the baby's supper or addle his brains by either rocking him in a cradle or jouncing him on the knee. If the child cry, or be restless and tossing when he should go to sleep, don't call him a bad child, or shake him into confusion and dizziness, but try to find out what is the matter. Perhaps a pin is sticking into his skin, or the bandage or some other part of his clothing is too tight, or his diapers are soiled and irritate him, or he is thirsty, or very likely he has had more to eat than he can digest and he has a load on his stomach, or even a colic. No one of these difficulties will be corrected by jolting or swaying the child, and they will only be made a thousand times worse by giving a dose of soothing syrup of any kind.

It would astonish many mothers and nurses to find how often a restless, "cross" baby will quietly go to sleep if he be simply released from all his clothing, laid

on a soft bed that does not rock, and well covered. Babies suffer more often from too much attention, too much dressing, too much feeding, and, above all, too much medicine, than from too little. The crib should be placed in a large, airy, well-ventilated, and sunny room. Do not let a strong light fall on the baby's eyes, but do not fear plenty of sunlight and fresh air in the room. Keep artificial lights out of the room where baby is sleeping or lying, as much as possible. Let the light shine in from the next room when needed, or if the lamp must be brought into the nursery, be particular to have it shine on the top of baby's head and not more on one eye than on the other. An infant's eyes will naturally seek the light, even during sleep, and if light influence one eye more than the other the result is apt to be squinting or crossed eyes.

After baby has had his first nap he may be put to the breast and begin his regular nursing. His mother, of course, is going to nurse him, if it be at all within the possibilities. She will never know another pleasure comparable to that she will feel as the little being she has brought into the world draws life, strength, inspiration, and tendency from her breast. As baby's body grows and its demands change, her milk will change too. When she is cross or angry he will get sick from taking her spoiled milk; when she takes beer or wine he will get drunk; when her mind is full of beautiful and holy thoughts, and her body cared for in accordance with nature's laws, he will drink in mental, moral, and physical health, and grow like her and in the direction of her aspiration. Those traits which

we designate inborn are not more certainly conveyed to the budding life in the womb than they are through the breasts, and that mother takes a terrible responsibility who puts her babe in charge of a wet-nurse, if it can by any possibility be avoided.

Baby should be nursed regularly. The idea that every time he cries he should be put to the breast, is pernicious in the extreme. The vast majority of infants who die is carried off by intestinal diseases due in large part to improper feeding. Many are killed by the unsuitable articles, wholesome enough for grown people, which are forced into their undeveloped stomachs. Many more die from the disorders resulting from sending down one meal before the last one is digested. Let baby have the breast regularly, at first once in two hours, after three months at gradually lengthened intervals till at weaning time, when baby will be about a year old, he will be nursed not more than three times a day. Never nurse the infant during the night between eleven o'clock and five or six in the morning. It is bad for the mother and just as bad for the child. Digestion is work, as truly for the baby as for the adult, and rest is needed from all kinds of work.

If baby cry and no external cause can be found, it is not unlikely that he is thirsty, and a few teaspoonfuls of water will charm him to sleep. The water may be given from a teaspoon without fear of choking, but it may be as well to wet a clean, soft rag and let him suck on that. A baby may often be quieted by dipping a finger in water and putting that in his mouth for him to suck. If the mother's breasts be well supplied

with good milk, it will be safe to assert that the baby will not get hungry who is fed every two hours during the day, with six or seven hours interval at night. But children do get thirsty, and it should be remembered that milk is always food, although it is also drink.

It is unfortunately often impossible for the mother to nurse her babe, and under such circumstances Art must be called in to make good Nature's deficiencies. A wet-nurse is commonly thought to furnish the best substitute for the mother's reservoir of nourishment, but this view is usually erroneous. If a wet-nurse could be found who was about the same age as the mother, who had been delivered of her child on nearly the same day, who was thoroughly healthy both in mind and body, who could feel for the little one as though he were her own, and entertain the same lofty aspirations for his future that fill the mother's mind, and of whose faithfulness, good breeding, and kind disposition there could be no doubt, such a wet-nurse would undoubtedly take the place of the mother better than any artificial substitute whatever. But those instances will be rare indeed in which such a person can be found.

In the attempt to bring up a child by hand the endeavor must always be to follow the model set by nature as closely as possible. Until the teeth appear baby ought to rely solely on what he finds in the breast (and mother's milk is not the same at all stages of the child's growth by any means) and if deprived of the breast his food should be as nearly like that found in it as possible. The nearest approach to mother's milk to be found in nature is the milk of the ass; but man has succeeded in

producing a compound still more closely resembling the standard article. This is produced by using "Peptogenic Milk Powder," prepared by Fairchild Bros. & Foster, of New York City. Full directions accompany each can, by which an article can be made that will deceive even baby himself, but it must be made from good cow's milk, and fresh. If there be a person in the neighborhood who owns a Jersey or Alderney cow with a young calf, and who feeds his cattle fresh grass or good hay and grain, try to get the milk of that cow regularly for baby, even if it cost a large price. A pasture-fed cow gives the best milk for use in preparing infants' food.

The simplest, and usually a satisfactory way of substituting breast-milk is merely to dilute good cow's milk and add sugar-of-milk to it. At first, for a healthy child, one-third water should be added to fresh milk, and the sugar-of-milk (which can be had at any drug-store) should be in the proportion of three teaspoonfuls to the pint. Do not use ordinary cane-sugar, as it is apt to turn sour on the child's stomach. After one or two months the proportion of water may be reduced gradually till pure cow's milk, sweetened, is given the child. If the child's digestion seem poor, dilute the milk still more, even to two parts of water to one of milk. In case the child vomits large cheesy lumps after feeding, add two or three teaspoonfuls of lime-water to his milk after mixing as above directed; but in such cases it is still more imperative to get a good prepared food or milk powder. If good fresh milk cannot be obtained, then condensed milk may be used, and should be diluted with from fifteen to twenty parts of water.

Other good prepared foods are Mellin's and Horlick's. Nestle's food is also good, but should not be used until the baby is fully three months old. Imperial Granum, Ridge's Food, and the "A, B, C, Cereal Cream and Milk" are also to be recommended. Baby's food should always be warm—about blood heat—but when simple milk is used it should not be boiled. Neither should the milk be boiled when prepared with the milk powders. With regard to other foods for infants, the directions printed on their labels should always be carefully followed.

As to the manner of feeding a child, a bottle with a rubber nipple is advisable ; but NEVER, under any circumstances whatsoever, allow the baby to use a bottle with a tube. Too much emphasis could hardly be put on that advice. It is simply impossible to clean such a tube so as to make it a safe carrier of infant's food. The spores attracted and nourished by the milk inside of it will burrow into its substance, so that they cannot be washed out. At least three *black* rubber nipples should be provided, so that each can be washed inside and outside, turning them wrong side out, and using a nail-brush for the purpose, in scalding water, and thoroughly dried after each use. Whatever the baby leaves after each feeding should be thrown away at once, and the bottle scalded out and thoroughly cleansed before it is again used. The enormous death-rate among infants, from stomach and bowel disorders, emphasizes the necessity for the most scrupulous care and cleanliness in everything connected with their feeding.

CHAPTER III.

FIRST TROUBLES.

In spite of the best care baby sometimes has a **Sore Mouth**. He may be afflicted thus when brought up solely on the breast, and then he is likely to make the nipples sore, as he is also liable to contract sore mouth from diseased nipples. But this trouble is much more common in hand-raised children. The mouth may be simply inflamed to a greater or less degree, or there may be a growth of little microscopic spores in the lining membrane of this cavity and on the tongue. In either case the trouble may extend downward to the stomach and bowels, causing vomiting, diarrhœa, fever, and the consequences of want of nourishment.

The child at first will be fretful and refuse the nipple; he may put his hand toward his mouth, but he will not necessarily show any signs of fever. On looking into the mouth little spots will be found, which at first are red, but soon grow white. If the white spots can be rubbed off, leaving the natural membrane underneath, the trouble is **Thrush** or **Sprue**; but if the white spots cannot be rubbed away they are probably ulcers, and we have inflammation of the mouth. In either case the first thing to do is to wash the mouth with cold

water on a clean, soft cloth. In fact, if the child be brought up by hand it would be well enough to wash the mouth out with cold water after every feeding, a treatment which could do no harm to any child. After washing, the sore places should be swabbed with a solution of *Borax* in water. For this purpose ask a druggist to mix in a bottle one grain of *Sublimed Sulphur*, ten grains of *Borax*, an ounce of simple syrup, and half an ounce of glycerine. Stir this mixture each time it is used, and swab it on the sore places. If baby seem to dislike the washing with cold water, warm, or even rather hot, water may be tried.

The medicines that may be used are : *Mercurius*, if the breath be bad, the mouth watery, and the stools scanty and slimy ; *Hepar sulph.* (globules), if the sores be chiefly on the gums and lips ; *Chamomilla*, if the child be very fretful ; and *Borax* (homœopathic powder), if the mouth be very dry. Give the selected medicine in water, a teaspoonful once in two or three hours. If the disease extend downward, and vomiting and diarrhœa appear, send for a physician at once.

Excoriations or Rash sometimes appears on the skin, due to lack of care in washing, the friction of harsh or ill-fitting garments, or to delay in changing the diaper, or even to rubbing of the baby's limbs together. Sometimes it is due to actual disease of the skin. The best treatment will be careful washing, and drying without friction by a soft napkin, after which a little rye flour or ground starch may be sprinkled on the parts. If the sores or excoriations be behind the ears, give a few doses of *Graphites* ; if there be blisters about the edges of the

rash, give *Rhus tox.* (globules); if the child be fat and flabby, with an unhealthy skin, *Calc. carb.* will be the remedy. Give the medicine in water, a teaspoonful once in four hours.

Usually a new-born child has a yellowish tinge to the skin, which is quite natural and will pass off before the first week is gone; but sometimes a condition of true **Jaundice** is presented, owing either to the use of purgative medicines to move the bowels, perhaps to cold, or simply to the fact that the liver at birth is much larger in proportion to the size of the body than it is in later life. This condition of jaundice will be recognized by the yellow tinge of the whites of the eyes, and by the pale, clay-colored stools. The yellow tinge of the skin will gradually extend over the body, and will usually pass off of itself or end in a diarrhœa; but if there be feverish symptoms in connection with it, it may be well to give a dose or two of *Aconite*. If it were caused by the use of *Rhubarb* or other purgative medicines, and the child be very irritable *Nux vom.* will be the medicine. If it were caused by a cold, and the child be peevish and fretful, give *Chamomilla*; if with diarrhœa, abundant urine, and very yellow skin, use *Mercurius*. Give the medicine in water, a teaspoonful once in four hours.

Milk Crust is an affection to which baby's skin is liable. It consists of an eruption of pimples filled with white matter, and rising from an inflamed and red patch of skin, usually at first on the cheeks or forehead. The patches itch badly, and if the pimples be broken the fluid spreads into thin, yellowish scabs. The disease may extend to other parts of the body, especially over the head.

The crusts should not be picked off, and no fear of their permanently injuring the complexion need be felt. The best remedies are *Rhus tox.*, especially if the discharge be watery and the redness and itching marked; *Arsenicum*, if the disease be accompanied by thirst and restlessness and be worse at night; *Graphites*, if the exudation be sticky and chiefly on the chin and behind the ears. Give the medicine in water, a teaspoonful four times a day.

It should not be thought because a pretty warm room was advised for the first bath and dressing of the new-born babe, that he should always be kept in such warm air. On the contrary, this would be especially bad, and, besides leading very probably to neglect of ventilation, would be quite likely to occasion an eruption of "**Heat Spots,**" or "**Red Gum**" as it is sometimes called, and it might also occasion a scurfy discharge upon the scalp. The prickly-heat spots are little blisters on a red base, and filled with a slightly tinged fluid, and if they break they sometimes leave small ulcers. They will not require much treatment except good bathing and attention to the child's comfort in the matters of temperature and clothing. Keep the nursery a little cooler, and take off a few of baby's superfluous wraps. Perhaps a dose or two of *Rhus tox.* in water, a teaspoonful once in four hours, will assist the cure.

As for the Scurf on the Scalp; that usually shows that proper care has not been taken in washing and brushing the head, besides pointing to too warm housing or dressing. *Borax* in water will be the best

thing to remove the scurfs, and anointing the raw and angry skin under them with vaseline will soothe and help to cure. If the scurfs be very hard, rub them over night with vaseline and wash off in the morning with borax water. If this be not sufficient, a dose of *Sulphur* in water may be given ; and in general, if skin diseases prove intractable, a single teaspoonful dose of *Sulphur* will often promote a cure even where other medicines have been tried without success.

Erysipelas is a disease that sometimes attacks very young infants, but it is not a case for the domestic practitioner. It usually begins with fever, soon followed by redness of the skin, perhaps on or between the hips or on the extremities. Blisters arise and the skin itself seems to swell and becomes dry and parchment-like, while the disease may spread to other parts, and may go to tissues deeper than the skin. Send for a physician at once, as the disease is often fatal.

Snuffles is a name given to a catarrh of the nose that may trouble babies, making it difficult or impossible for them to nurse, because they cannot breathe through the nose. If the nose be dry, anoint it inside with a very little vaseline, and give a teaspoonful of *Dulcamara* in water, every two hours, especially if the trouble be worse every time the weather changes or is damp. If baby be constipated, and the nose be now dry, now running, *Nux vom.* should be given in the same way. If it run badly, *Mercurius* may be the medicine or *Nux vom.* and *Mercurius* together in the same tumbler. If the trouble extend to the chest, with rattling of mucus there, *Ant. tart.* will be wanted. Be careful to dry

baby well with warm towels after his bath. If the trouble extend to the eyes, and they seem inclined to water, *Mercurius* is still the remedy ; and if that do not improve the case, try *Pulsatilla*, or both these medicines together. In each case put six or eight pellets into half a glass of pure water, and give a teaspoonful at a dose once in two hours.

If the baby's throat become sore, he will generally manifest it by an inability to swallow. He will want to nurse, and will seek the breast eagerly, but will soon stop sucking, and perhaps the milk may return through the mouth. The child will cry, and may be hoarse. *Belladonna* is usually the best remedy for this trouble, especially if the face be flushed and there be swellings and lumps in the neck. Give it and the following medicines as directed in the last paragraph. Look into the throat, and if the membrane be bright red, dry, and the child be feverish, give *Aconite*. If the tonsils be enlarged, and the mouth watery, *Mercur. prot.* will be the remedy, and if the glands seem very much swollen it will be best to put a little *Iodine* on the neck externally. At a drug-store buy some *Tincture of Iodine* which has been mixed with an equal quantity of *Alcohol*, and mix this at home with water, part for part. Paint this mixture on the neck from ear to ear, and under the chin, with a camel's-hair pencil. Even *Iodine* of this strength (one-fourth) will burn the baby's skin for a short time and make him fret and cry ; but in the above quantity it will not take off the skin or do any harm, and the burning sensation will soon pass off. Nothing else will take down the glandular swelling so

quickly. It may be used, if necessary, once a day, for three days only; but, as a rule, it should not be used again after the third day, until an interval of three days has passed. Tincture of Iodine will not keep very long if mixed with water.

Hiccough is an annoying trouble with nursing children at times. It is due to nervous irritation affecting the muscles near the stomach. It has various causes—overloading the stomach, or exposing some portion of the body to cold, or feeding improper articles, are the most common. If the cause can be discovered and removed, usually nothing else will be required; but *Nuxvom.* may be needed. A few (four or six) globules may be dissolved in water, and a teaspoonful given once in two hours. If hiccough be a symptom of serious disease it should always be reported to a physician, as it is a slight form of convulsion.

Colic would undoubtedly be selected by very young children as the most important interference with their happiness. The baby who comes to the time of cutting the first teeth without having had more or less colic should be prepared for many bitter experiences in after-life, for such immunity must lead to compensation of some sort. Sooner or later baby is pretty sure to be found crying lustily, writhing and twisting his little body this way and that, drawing his little legs up against his belly, and expressing suffering by every means at his command. His abdomen will be found swollen and hard, while rumbling and gurgling of wind will commonly be heard in it. Usually the bowels will be constipated, but if there be diarrhoea the stools should be

examined for worms. The passage of wind upward or downward, or an attack of vomiting, or diarrhœa may end the trouble, or, at least, greatly relieve the little patient.

Colic is usually occasioned by indigestible food in the stomach, or by too much or too frequent nursing, by disturbance of the mother's milk by fits of anger or other emotions or passions, or by improper eating and drinking on the part of the mother, by cold or by worms. It is much more common with those children who are raised by hand, and where the attacks are very frequent it may depend upon constitutional disorder, about which a physician should be consulted. A child is often thought to have colic when the real trouble is a pin sticking in the skin, tight clothes, or thirst; but when all the signs above given are found there will be no doubt as to what is the trouble.

Gentle friction over the abdomen will often do much good in spite of the seeming tenderness. Heat applied to the abdomen is one of the best remedies. Salt may be heated and placed in a bag and this laid over the belly. If the bowels do not move, an injection of pretty hot water will help matters, and it should be given in quite considerable quantity, as much as half a pint being advisable for a very young baby. If the baby has vomited, notice whether the milk comes up in large lumps. If so, these are probably the cause of the colic in a bottle-fed child, and a teaspoonful or two of lime-water should be mixed with his food. The best medicine to give will be *Cocculus*, especially if there be a great deal of wind and the attacks come mostly at night. Where

the child screams much, and can only be quieted by being constantly carried, *Chamomilla* should be used. If this remedy do no good, try *Colocynthis*, especially if the child double himself up and seem better after every passage of wind. If there be diarrhœa with the colic, give *Mercurius*, and if worms be found in the stools give *Cina*. If it be known that the child has taken some indigestible food, give *Nux vom*. In each case dissolve about eight pellets in half a glass of water and give a teaspoonful every half hour.

Sometimes a variety of colic or flatulence is found in which there is an accumulation of wind in the stomach and upper part of the bowels. The distention presses upon the lungs and causes the child to catch for breath while he has other symptoms of colic. The swelling induced by the wind can be seen externally, and has caused this difficulty to be called **Liver-grown** from the idea that the liver itself was enlarged and pressing upon the lungs. This trouble has much the same causes as just enumerated under colic, but often tight clothing or a too tight bandage may be a cause. Gentle rubbing of the distended part, and a dose or two of *Chamomilla* in water will usually make all right.

Vomiting is of frequent occurrence with children, whose little stomachs are arranged so as to especially facilitate this act. It is nature's way of guarding against the overloading of that organ, and of rejecting any harmful substances. Unless it be accompanied with diarrhœa, or the child seem sick in other ways, or be not thriving as he should, an occasional attack of vomiting need not excite any concern. If it occur frequently,

the cause should be sought for in the mother's health, habits, or state of mind, and if anything be wrong here it should be corrected. The medicine for the child, if one be needed, is usually *Ipec.*, given in water, a teaspoonful once every hour as long as necessary.

There is a general disease prevalent among very young children, and affecting the glands of the abdomen, called **Marasmus**. Digestion is imperfectly performed, and its products are not properly taken up by the system, and in consequence the child wastes away, the eyes sink, the strength fails, and death results. Such a case will, of course, be put in charge of a physician without delay.

The bowels sometimes escape from their place in the abdomen and protrude, forming a swelling, which can readily be seen under the skin. The most common place for such a **Rupture** in infants is at the navel; but it is not infrequent at the lower part of the abdomen, just at the side of the place that is covered by hair in later life. The bowel which causes these swellings should be replaced as soon as possible, and this usually is not difficult in the case of the navel rupture. The child should be laid upon his back, and the swelling should be very gently yet firmly pressed into the abdomen. It can be contracted and guided by the fingers of the left hand, while the right hand presses it back. Once restored, it should be held in by a bandage. A small wooden or ivory ball can be cut in half, covered with some soft material like buckskin, and the round side can be fitted over the place through which the bowel escaped, and held there by means of surgeon's adhesive plaster cut into long straps. Such a truss should be

worn a long time ; but the case, after its first care, should be put into the hands of a physician. It is said that a few doses of *Nux vom.* will cure the conditions upon which rupture depends. The physician must decide whether it should be given or not.

Something has already been said regarding the retention of the earliest stools, but infants are occasionally subject to persistent **Constipation** needing investigation and treatment. This trouble, like so many others of nursing children, may depend upon irregularities, bad habits, or ill health in the mother or wet-nurse. Where these exist they must of course be removed for the cure of the child ; but this particular difficulty is more common among the hand-raised children, and the cause is to be sought in the character or quality of the food. If it depend upon disturbance of the liver the stools will be hard, dry, and light colored, and *Nux vom.*, given four times a day in water, a teaspoonful at a dose, will do much good, especially if there be much colic. If the stools be dry and crumbling, but dark, *Bry.* should be chosen, and given in the same way, particularly if the child seem very thirsty.

If the condition persist for a long time, the stools may be softened by injections of cold water in so small quantities (about a tablespoonful at first) that the injection can be retained. The bowels of a young infant should always move at least once a day, and in health they usually move oftener for the first year or two. Never give purgative medicines to an infant. This course is productive of much mischief. Cure the condition upon which the constipation depends, and if it be necessary

to secure movements by artificial interference, use injections of cold water in which a *little* soap has been dissolved. Red castile soap is best for this purpose, and injections should be of from four to six tablespoonfuls.

The opposite condition of diarrhœa is much more common with infants and young children, and is usually more serious as well. Mere looseness of the bowels, with as many as six movements a day, in a child less than a year old, need hardly excite concern. If the infant should habitually have but, say, three movements a day, and they should suddenly increase to six, it would be well then to look for other evidence of disease; but it is not so much the number as the character of the stools that should put us on our guard. A marked change in the color, odor, or consistency of the passages, with evidences of pain, colic, wind, thirst, fever, or wasting, would constitute a very good ground for thinking baby unwell, even if he had but the usual number of passages.

The causes of diarrhœa are to be sought in the same directions as those of many other troubles, namely, in the character of food. The use of injurious substances, or the yielding to strong emotions on the part of the nurse, will show itself in baby by a diarrhœa; while poor milk, bad air, cold or damp, improper food, soothing syrups, and purgative or other medicines, may, any of them, give baby a diarrhœa which will be quite capable of draining away his life.

Green, yellow, white, watery, frothy, or bloody stools, especially if unusually frequent and accompanied with pain, fever, colic, or fretfulness, should be promptly met

with appropriate medication and attention to the probable cause; and if no one of the medicines here named seem to relieve the condition, a physician should be called before it is too late.

The best general treatment for diarrhœa, after finding and removing the cause, is to put into half a glass of water about as much as would lie upon an old-fashioned three-cent piece of the powder of *Chin. ars.*; dissolve it, and give of this a teaspoonful every two hours. This plan will be especially valuable where the stools seem to contain undigested food and are accompanied with much wind, and when there is some pain before the stool, which is relieved by its passage. When vomiting accompanies the stools, especially if they be green and fermented, give *Ipecac.* If the stools have a very bad odor, be green and watery, with colic, and the child be very cross and fretful, give *Chamomilla.* If there be blood in the stools, and the child seem to strain in passing them, give *Merc. cor.* And if the stools be green, and if there be a sour smell to them, and, in fact, to the whole child, give *Mag. carb.* The directions for *Chin. ars.* apply to any of the medicines, six or eight globules being equivalent to a powder.

Children are sometimes unable to pass their water freely, and this is a condition not likely to attract the attention of an unobserving person. The child seems in pain and draws up the limbs as if afflicted with colic; but there will not be the signs of disorder about the abdomen generally that belong with that ailment. But if the diapers be noticed, their persistent dryness will show where the trouble lies. The bladder may

even be distended so that the fulness can be observed. If the child pass a few drops of urine at a time, with evident distress, give *Canthar*. If there be fever and thirst, select *Acon*. Warm water applied externally by a cloth to the lower part of the belly will often cause the urine to flow off. Let the little patient have as much water as he seems to desire, as it will dilute the urine and make it less irritating, and give the selected medicine in water, a dose every hour.

If the little female infant should be troubled by a discharge of whites from her private parts, two or three things may have caused it. Either the nurse is careless in bathing the parts, and has allowed irritating matters to remain on or get into the vagina, or the little one is troubled with pin-worms which have crawled forward from the back passage, or the general health is depressed. If either of the first two causes be found, cleanliness is the remedy; but, as a rule, it is well not to believe in worms as a cause of any disturbance unless you can see the worms themselves. If a medicine be needed, select *Calc. carb.* where the feet are cold and the child fat and rather flabby; *Pulsatilla* will be better if the discharge be milky and the parts swollen. Give the medicine in water, a teaspoonful four times a day.

A disease of the most serious and fatal nature is **Hydrocephalus**, or water on the brain. It should be put into the hands of a physician from the earliest possible moment, and is mentioned here only because an inexperienced person might think a child only afflicted with colic, or some such simple matter, when really this disease was making its inroads. Children with

large heads, and who seem to have large glands and white, flabby skin, are more liable to the disorder, and when a child sleeps with eyes partly open or crossed, knits his brows in sleep, turns his toes in, twitches here and there, wakes suddenly with a scream and has a hot head, with cold hands and feet, such a child should be seen by a physician without delay.

In general it should be remembered that a child during the period before the appearance of the first teeth is absolutely without responsibility, will, or any but purely animal traits. He cannot be either good or bad in a moral sense; he cannot be taught anything except by instinct and nature; he cannot remember, and he cannot understand. He is absolutely the most helpless of living creatures. His brain is scarcely different from water, and if impressions could be made upon it they would fade away like a reflection from a mirror. At first his eyes cannot see or his ears hear, for lack of organization in the receptive and perceptive faculties. But no man can say just when this state of things changes, just when memory dawns, and impressions begin to be retained. We all know, however, that when that time does come—and it is very early in life—the impressions then made are among the most permanent of life. Wise are the parents who see to it that the first impressions baby gets are from and of them, and not from some ignorant or vicious nurse; and that the impressions are those of love and care.

The nervous system below the brain is sufficiently organized at birth to run the vital processes of respiration and digestion, to move the muscles, and

nourish the body. This part of the nervous system is just as susceptible to impressions as the brain, but it is sufficiently organized to retain and reflect them. Hence we find the little infant thrown out of order by what seems so trifling an affair as a fit of passion on the part of the nurse, directed toward some object remote from the infant himself. But the fit is sufficient to change the nurse's milk in a way that no chemist has yet exposed, but so that baby is at once made sick by it. In fact, it is often feasible to affect the baby's condition, favorably or otherwise, by giving medicine to the nurse. Baby's nerves are just as susceptible to influences arising in his own body, and it will pay mothers and nurses to study the sign language resulting from this susceptibility. Baby can answer questions only by such signs, and by them therefore the physician must be guided in discovering where something is wrong.

Crying is not to be thought always the evidence of pain. It is baby's only way of expressing himself by sound, and may be only exercise for the lungs. But if it be persistent and arise from distress or pain, as will be evident enough to the observing nurse, its cause should be sought according to hints already given. Never call the child cross or bad, never lose patience with him, and, above all, NEVER GIVE HIM A DOSE OF SOOTHING SYRUP. A careful statistical authority has estimated that *sixty thousand* children die every year in this country alone from the direct consequences of a single brand of soothing syrup, which nevertheless is regularly advertised by religious and secular papers all over the land. The deadly element in the soothing syrup is

opium, and hence any of the forms of that drug, such as laudanum or paregoric, are to be as strongly condemned. In view of the terrible death-rate among infants these warnings cannot be made too emphatic. Let baby die a natural death, if he must, rather than hurry him into the grave with these powerful drugs and poisons called medicines. If no cause can be found for baby's distress, crying, or wakefulness, it is advisable to give a dose of *Chamomilla*, especially if baby wants to be constantly carried; but don't use Chamomile tea; better put a few globules in water and give teaspoonful doses every hour or two. If the medicine be adapted to the case, the quantity will be found quite sufficient, and if it be not, more can only do harm. Another drug that will often quiet an infant, if given in the same way, is *Coffea*. **Feverishness** usually calls for a similar administration of *Aconite*, and if the use of these simple prescriptions do not give satisfactory results, and baby seem to be getting worse, the skilful, conscientious, and sympathetic physician should be consulted. This will be a much safer and wiser proceeding than the groping after another remedy by the partial light that is all the unprofessional person can be expected to possess on the great subject of medicine.

CHAPTER IV.

FIRST DENTITION.

Teething is undoubtedly a perfectly natural process connected with the growth and development of the body, and in no proper sense to be considered a disease. Yet everyone knows that it is a process attended with much distress to the little one, and quite likely to be accompanied with disorders of the various organs in all parts of the infant's body. Many authors have claimed that because dentition is a natural process, it is wrong to attribute to it the ailments of stomach, bowels, and even lungs, that may chance to trouble the infant at the time the teeth are making their appearance; while the laity generally take the side of other writers, who ascribe to this process all the ills that may occur during its continuance, and possibly allow the infant to quietly slip into his little grave from some serious disease, of the symptoms of which they have simply said: Oh, the baby is cutting his teeth."

The truth of the matter is, that the eruption of the teeth, particularly the earlier ones, is the most difficult and exhausting work demanded of the infant's body; it is accompanied by changes in other organs, and when it is completed the little one has ceased to be an infant and has become properly a child.

All the processes of the body, without exception, require nerve-force for their performance. Of nerve-force the body has not an inexhaustible supply by any means. On the contrary, it is a very valuable item in physiological economy, and in its production by far the largest proportion of the blood is consumed. It follows, then, that when some special demand for nerve-force is made by some one department of the body, less will remain for the other departments. This is the probable explanation of the fact that the growth of the body takes place by stages and in sections, so to speak. Nature works for a time at one organ, or set of organs, and neglects others, which are developed in their turn.

The teeth seem to make extraordinary demands upon the nervous system in their development and eruption. It is more than probable that this is because they are largely composed of the same materials which are the peculiar food of the nervous system. At any rate, the body is undoubtedly in a state of peculiar liability to disease at this period, and it is very certain that the teeth are pushed through in successive crops, as though nature required intermissions for rest in the task of furnishing the mouth with these tools.

The order in which the teeth make their appearance may be seen from the following diagram, in which each square corresponds to a tooth, and those having the same figure come at the same time.

7	3	6	2	2	2	2	6	3	7
7	5	6	4	1	1	4	6	5	7

The time at which the various sets appear differs with different children, as does the interval between the various sets. The two lower middle teeth usually are the first to appear, and they come, as a rule, not before the fourth or after the seventh month. Next come the four upper middle teeth, after an interval of one or two months. Usually a somewhat longer interval elapses before the first grinders appear, and these are those of the upper jaw, and come at a sufficient distance from the middle teeth to allow the eye-teeth to enter between. At about the same time the other two lower middle teeth will show themselves ; or these last may be delayed for three months, and come with the front lower grinders, or they may even appear before the upper grinders. Two or three months later, or toward the end of the second year, the eye- and stomach-teeth come through, and last of all come the back grinders, finishing the set of twenty temporary teeth at the age of about two and a half years. But the order of appearance of the teeth is as irregular as are the times and intervals at which they come.

The pressure of the tooth upon the gum as it advances will naturally produce more or less pain, and will also tend to locate blood near the advancing tooth, causing swelling and redness, with increase of water in the mouth and perhaps general feverishness. This condition of things has been a frequent temptation to the physician to lance the gums. But it is evident that cutting the top of the gum can have no influence in pushing the tooth up from below, while, if the cut have an opportunity to heal before the tooth is ready to come through, the gum will be harder and tougher where it was cut

than elsewhere. Still, if the tooth can be seen just about to crowd its way through, and the gum seem tough and unyielding, and the child be constantly putting his hand to his mouth as if in great pain there, it will be well to have the gum lanced just where the tooth can be seen. Or if the blood be sent to the part so as to make a little abscess, as not infrequently happens, it would then be well to open this, and it often relieves the little patient, without doing harm, to lance the *side* of the gum, if it be swollen, but without signs of either tooth or abscess.

The soreness of the mouth will often make the infant refuse the nipple, and in this way cut off his nourishment, a condition making it specially important to give the little sufferer all the help at our command. The best medicine for the inflamed and painful gums will be *Bell.* in water, which should be given in teaspoonful doses hourly. If there be much water running from the mouth, and little ulcers be found on the tongue and gums, give *Merc.* in the same way.

When the trouble seems to be more with the teeth themselves than with the gums, a different course has to be pursued. The teeth come sometimes without any regularity, and are manifestly of poor quality, so that they break or crumble or stain easily. Here the trouble is with the materials out of which the teeth are made, or with the process of putting those materials together, not with the process of eruption. The medicines to be used in such cases are *Calc. carb.* for children who have large, open fontanelles, much sweat, especially about the head, and are inclined to be fat and flabby, particularly about the abdomen. *Calc. phos.* will be better

if the fontanelles be open, but the child is thin and wasted. Use *Mag. carb.* if the teeth come late, with fever, swollen gums, and a sour, green diarrhœa. Give the medicine in water, a tablespoonful four times a day. In all cases of irregular or delayed dentition, with apparently poor quality of teeth, it will be well to feed the child a little thin and strained oatmeal gruel.

It is an excellent plan to allow a child to have something like an ivory ring to put to his mouth while the teeth are coming through. It should be smooth, strong enough to avoid danger of breaking, and too large to be crowded into nose, mouth, or throat. Nor should a slight diarrhœa in connection with this process be deemed unfavorable, as it will counteract a tendency of blood toward the head, which might, without this drain, result in unfavorable conditions.

During the period of dentition many changes occur, both internally and externally, with regard to baby's body and habits, making necessary some differences of treatment. So far as these changes are under the control of mother or nurse, it should be the effort to introduce them at a time when the child is apparently resting from the processes in nature's control. Nature works on the plan of doing one thing at a time, and we will do well always to follow her hints.

With regard to diet, the eruption of the teeth may be considered as a signal that the stomach is becoming capable of digesting something besides breast-milk, or the articles mentioned in a preceding chapter. It is not yet time to wean the child ; but thin oatmeal gruel, strained and added to milk, may be used. Oatmeal in

the summer will, however, sometimes be heating, and hence inadvisable. Broths made of chicken or mutton may be next introduced, and beef-tea may follow. Arrow-root and farina should come later, the former being the main reliance in hot weather, at which season farina should never be used by infants. The starchy articles, like potatoes and those just mentioned, should be withheld till several teeth have appeared.

Any change in diet should be introduced after, and not during, the cutting of a tooth, and all through childhood milk should be regarded as the staple article of food. These remarks apply as well to children brought up on the bottle as to others; but it will be necessary to take more care in introducing changes of diet with those who are artificially reared.

Weaning should likewise come in the intervals of teething, and after the child has become accustomed to taking food other than breast-milk. The best time for weaning is usually at about one year old. It may be done sooner if the child be strong, thriving, and have cut eight or ten teeth. It should be postponed till a later period if the teeth be backward, and the child have not taken kindly to other food. No hesitancy need be felt about weaning in the summer months, unless there should chance to be an epidemic, or the child should be ailing. When it has been determined to wean the child, nothing is needed except to stop nursing. Undoubtedly the child will object to a cessation of the usual custom, and perhaps the mother will have some objections on her own account; but these feelings are not to be humored, and in two or three days baby will have forgotten all about his loss.

Children should not be allowed to eat "everything," even after all the milk-teeth have been cut. Many articles are to be found too commonly on the dining-tables of America which are not fit for adult stomachs, much less for those of children. Rich cakes and pastries, pork in general, hot fresh bread, coffee, mustard, horseraddish, pepper, and strong cheese are certainly not fit for children, whatever may be thought of them for older people. The most fatal diseases of this period are still those connected with the digestive functions, and it would be far better to keep the child eating at a separate table, than to feed him promiscuously, at this age, with whatever might be set before his parents.

Indigestion shows itself in very young infants by more pronounced symptoms than in after-life, and it is more common in the earliest years than at any later time. With older children the symptoms are very similar to those too frequently experienced by adults. The youngest infants suffer more from the disease in a chronic form, while older children are more liable to acute attacks. It is caused either by a weak state of the digestive organs, or by improper food; and hence anything that will depress the vital energies, as hot weather, bad air, or other diseases, will cause it; and in these conditions improper food is, of course, doubly injurious. Some infants will take nothing but breast-milk, and if such cannot be nursed by the mother, their lives may be saved by a wet-nurse. Often a wet-nurse does harm, because her milk is not of the right age, or the milk is spoiled by the return of the monthly sick-

ness, or even by a new pregnancy. Either constipation or diarrhoea may accompany the trouble ; but, if anything, the former disorder is more serious, at least in the acute attacks of older children ; because the irritating articles lying on the stomach or bowels, in this inactive condition, may set up reflex spasms, or even convulsions, which may result in death. It is quite possible for an attack to depend upon some indigestible article like currants, raisins, or candy, eaten twenty-four hours previously. In acute attacks a child may be relieved like magic by a turn of vomiting, while in the chronic difficulty vomiting may be of frequent occurrence, and the character of the ejected matters will then often give a hint as to the cause of the difficulty. Large curds of milk usually show either acidity of the stomach, or that cow's milk does not agree. In the one case a little limewater should be mixed with the food, as previously directed (see page 54), and in the other a change of food should be tried. Undigested food, too, will often be found in the stools.

A child may be hungry who is suffering with indigestion, and is specially likely in that case to crave forbidden articles and reject wholesome ones ; but more commonly loss of appetite is experienced. Irregular feeding and too frequent feeding are both to be avoided. Giving the breast is far from being the cure-all for infants, and a shorter interval than two hours for the youngest children is very rarely desirable unless the mother's supply is markedly scanty and needs the stimulation of frequent sucking.

Acute attacks of indigestion, which may occur

in infants or children who are suffering with the chronic difficulty, will be accompanied by languor, drowsiness, flushed face, feverishness, indisposition to play but desire to lie down, and there may be twitchings of the muscles in sleep, which are the precursors of convulsions. The child may complain of pain in head and stomach. If, now, the child vomit it will be well at once, but if he do not, there will, perhaps, be colic, and later a diarrhœa, thirst, and tossing. The trouble may easily be taken for the beginning of some more serious disease, but the absence of the specific accompanying or distinguishing signs of such trouble in the throat, lungs, or other organs will decide the matter. If it be known that the child has eaten something unwholesome it will be well to tickle his throat with a feather to induce vomiting; but a purgative medicine is not to be recommended. Heat and gentle frictions with the hand applied to the abdomen will relieve the little sufferer, and, of course, the cause of his attack must be sought for and avoided, if possible, in the future.

In the chronic form the child grows thin, pale, and flabby, blue rings may appear under the eyes, the child is languid and has usually no appetite. He wants to lie down, but he does not sleep as well as usual, and is likely to toss about considerably; he may even grind the teeth and moan in sleep. Don't think that such children have worms unless you can find worms in the passages; and these should be examined more than once or twice. In indigestion the stools usually contain undigested food, whether the bowels are loose or constipated.

The treatment should be largely preventive by following the plan of diet already pointed out ; but for a chronic sufferer a change from what is usually the best plan may be needed. Where milk does not agree, cream sometimes suits the infant ; but it needs to be more diluted with water than does milk, say one part of cream to two of water. A simple and wholesome diet for a young infant may be made by boiling flour suspended in a bag and tied tightly. A teaspoonful each of salt and sugar-of-milk should be mixed with each pound of the flour. It should be boiled for ten or twelve hours, and hung up to dry over night. The outside layer of paste should be rejected, but the hard ball inside may be further dried and used as required. A teaspoonful of this ball, powdered finely and mixed with the water in which the flour was boiled, or in milk, makes nourishing food.

Older children should have a diet laid out for them to which they should be required to adhere rigidly. For a child who has all his milk-teeth a breakfast may consist of milk, oatmeal, boiled rice, poached or boiled egg, and dry bread. A dinner may be made up of broth with rice or barley, plain meat without sauces or seasoning except salt, baked potatoes, turnips, green peas, hominy, rice-pudding, and ripe fruits, with milk. Absolutely forbidden articles are hot breads, sausages, pork, ham, corned beef, goose, duck, fats in general, sweet cakes, sweet-meats, canned fruits and confectionery, tea and coffee, and every form of liquid containing even the least alcohol. The child will be quite likely to object to such a regimen at first, but it will not require more than

two or three days to come to even a liking for the articles named, and everything else should be withheld, even if the child goes without eating for a day or two. A rest of that kind will do the tired stomach no harm, and the child will not die of starvation in that time; certainly not if good food be before his eyes. If hunger between meals be present, dry bread and a glass of milk may be safely given, and probably are needed.

Medicines will often be found quite unnecessary where the above plan is faithfully followed, but if any be required select *Bell.* when there are jerks and twitches of the muscles during sleep, flushed face, thirst, and full pulse. *Cham.* when the child is irritable, wants to be carried constantly, and has green, offensive stools, with colic. *Ipec.* when there is much vomiting and sickness. *Nux vom.* for headache, pain in the bowels, and constipation. *Puls.* if fats and sweets always produce bad effects. Give the medicine in water, a teaspoonful once in two hours.

Changes in dress are made during the period of first dentition, the long clothes of early infancy giving place to shorter and less troublesome garments. Such changes ought to be carefully made, and like all other important events in the young life, they should not occur while a tooth is being pushed through, or while nature is fighting a disorder anywhere in the baby's body. The chief danger about short clothes will be that arms and legs will be neglected, and the body consequently unequally protected. The body should be of uniform temperature at all points, and this condition will hardly be secured by thickly covering the trunk, and leaving

the knees bare and the feet covered with a single thickness of cotton. Babies certainly should be kept warm, but more clothing than is sufficient to accomplish that object is hurtful, and they usually live in rooms rather too warm than too cool. The less clothing worn by a healthy child who can run about out of doors, the better. Let the little rascal go bare-footed, and bare-headed if he will, even in winter, unless he complains of cold. But do *not* put flannel next the skin. Flannel deadens the skin and robs it of much of its opportunity for doing the natural work by which it is strengthened and invigorated to thrust back cold, damp, and disease. A healthy skin will do this work vastly better than any clothing, if it be not hampered and hindered by the latter; and flannel, which is irritating and a non-conductor of electricity, actually deadens the skin, and has sent many a young infant off into spasms. Wool makes good outside garments, but linen, or, at worst, cotton, should come next the skin at all seasons, at least till old age begins to make itself felt. Take off flannel during the warm weather, and by the aid of cool bathing, if it have already been used next the skin, and when once off, leave it off. And don't trouble the active boy with an overcoat in winter, until he thinks of it and asks for it of his own motion.

Wetting the bed is a trouble very common with young children, but if done in sleep it may safely be said that it is never their fault. It may be due to leaving off the diaper too early, before the little one has learned to control the passages; it may be caused by the irritation of worms, or by nervous weakness that

will show itself also in other ways. In boys a very common cause is a foreskin which is too long or too tight, so that it cannot be drawn above the glans at the end of the penis, at which point it should be permanently worn. Or the trouble may come from irritating qualities in the urine itself, due to the fact that unhealthy processes are going on in the body, or that insufficient water is taken to properly dilute the urine. It will very rarely result from the mere quantity of healthy urine.

The cure of the trouble should be effected by patient effort to break up the habit (for such it usually becomes), and never by punishments or by mechanical applications to the body, such as a knot of towel on the spine to prevent lying on the back. The child should be taught, as a rule, to urinate in one place, and to hold his water till he reaches that place, if not too far off. A child should never be required to hold his water more than a few moments after he desires to pass it; but he should not be allowed to relieve himself the moment he wishes and wherever he chances to be. He should be watched carefully to see at what time of the night his water passes, and, if he be at all regular, he should be taken up just before that time and caused to pass his water. If no regular time be noticed, let him be taken up for the purpose as nearly in the middle of the night as may be. If he pass water in the first sleep try to awaken him in the very act a few times in succession, and he will soon learn the sensation and wake on feeling it. If his foreskin be long and narrow, let a surgeon circumcise him at once, by all means, and if there be

any other disease, or worms present, try to get them out of the way.

The best medicines are usually *Bell.* and *Caust.*, which should be mixed together in a glass half full of water and given in teaspoonful doses every two hours for several days. In the case of little girls who pass the water in their first sleep *Sepia* may be substituted for *Caust.*, and if worms be plainly found *Cina* should be used. If these drugs fail, *Sulphur*, given in the same way, will often succeed.

Vaccination is a proceeding that will no doubt be thought of, or suggested at this period, or, possibly, even before the milk-teeth appear; but *no* consideration should induce a parent who cares for the health of the little innocent in his charge to permit the useless and dangerous operation to be performed either at this or any other period of his life.

Vaccination has been advocated so generally and on such high authority that most people think its value beyond question; the majority of physicians, who in the nature of the case are quite unable to carry out independent investigations or to keep pace with all of those made by others, practise and advise the operation in spite of the few cases with which most of them are personally acquainted in which its evils and its failures have been apparent. In some States it is even made a legal requirement, unvaccinated children not being admitted to the schools. Yet it has been proven beyond question that small-pox has not been in the least arrested by the operation, but crops out here and there now just as of old, and claims vaccinated and unvaccin-

ated alike for its victims. Small-pox has even been introduced in places where it was before unknown, by vaccination, and physicians have been held responsible by courts of law for so producing epidemics. A greater proportion die of small-pox among those who are attacked after vaccination, than of the unvaccinated, especially among infants. Diseases have been communicated from one person to another by means of vaccination, as is admitted on all hands, and many of the diseases so communicated are far worse and more fatal than small-pox itself. All this has been abundantly proven, and, moreover, arguments alone can show that vaccination must be incapable of protecting from small-pox, although such arguments are out of place in this work. But that their force has been felt by vaccinators is shown by the number of changes made in the times and plans recommended for the performance of the operation.

But beside all this, it is more than probable that diseases worse than small-pox are favored and induced, if not even caused, by vaccination. That process puts an active poison directly into the blood, the tendency of which is to reduce the power of nature to throw off offensive matter through the skin, which is the most important and active cleaning organ of the body. This compels these harmful matters to seek an outlet through the internal organs, which are thus both overworked and brought in contact with deleterious matters which they were not intended to cast off from the body. This unnatural state of things predisposes to diseases, which are fastened upon the body by their peculiar exciting causes in connection with the weakness of particular

organs. In this way vaccination is undoubtedly to be charged with a large share of the marked increase of diphtheria, typhoid fever, Bright's disease, and other troubles, worse than small-pox, which are known to have greatly increased both in cases and fatality since the introduction of that operation. To those who have studied the history of medicine there is nothing wonderful in the fact that so utterly bad a practice should have become so widespread. Its immediate predecessor, inoculation, for example, which was a worse thing no doubt, lived a hundred and twenty years before it was made a penal offence by law, and it passed through almost the precise stages that vaccination has, and was sustained by the same identical arguments. Vaccination is now only about eighty-five years old and it is to be hoped it will soon die.

CHAPTER V.

DISEASES OF CHILDHOOD.

While the teeth are making their appearance children are quite liable to eruptions of various kinds and on various parts of the body. About these perhaps enough has been already said in a previous chapter. *Sulphur* is the most important single remedy.

There is a remarkable proneness to troubles with the eyes at the time the eye-teeth appear—probably the reason these teeth are so named. If the remarks of an earlier chapter do not enable the domestic prescriber to meet these troubles, an oculist should be consulted.

Spasms and convulsions are among the most distressing events of infancy and early childhood, but in a majority of cases they are more alarming than dangerous. They may be caused by the irritation of teething, indigestible matters in the stomach or bowels, by coughing or crying violently, by cold, constipation, the attack of some disease (in which case they substitute the chill that so frequently ushers in serious ailments with adults) or by actual disease of the brain or its coverings. They may be purely nervous, or depend upon congestion of blood to the head. When they come without premonitory symptoms or the presence of other

diseases they usually terminate favorably, but where they occur in sick children, especially after the eruption of scarlet fever or measles has come out, their import is grave indeed. In scarlet fever and measles, if convulsions occur before the eruption is out, it is regarded as a rather favorable sign, indicating recovery after a brief course of fever. It is presumed that, as a symptom of some serious disease, like dropsy of the brain or scarlet fever, convulsions will have been anticipated by the physician in charge, and the necessary directions for the care of the patient will have been prescribed by him.

In some cases premonitory symptoms can be noticed in the child, indicating that an attack of convulsions is at hand. During teething, and in case of change of diet it would be well to look for such symptoms, as they may rarely be noticed as long as a day in advance, more often a few moments or hours; but in many cases no warning of the attack can be perceived. These symptoms are unusual drowsiness, with a hot head; a fixed, staring look, with wide open eyes; sudden startings; the thumb bent and held across the palm, and fretfulness, with turns of inattention when the child is spoken to, as if he did not hear. When in such a state as this, a touch or sound may cause the child's eyes to roll up out of sight, or to cross, his muscles to twitch violently or become rigidly fixed, his jaws to shut, possibly biting his tongue, while the whole body may writhe in a most distressing fashion. The face may be flushed or pale, and the bowels and bladder may be emptied involuntarily. The spasms are more commonly partial and without loss of consciousness, but they may be gen-

eral and with unconsciousness. They may last from a few moments to hours—as a rule, perhaps fifteen minutes, and the more violent they are, usually the sooner they are over. Even in the most serious cases death rarely results from the first attack, and usually there is no immediate cause for alarm.

In meeting such conditions the physician will, of course, be called as soon as possible; but while he is coming the fit may be over, and he will have only to discover the cause and guard against a fresh attack. A bit of cork should be put between the jaws, if possible, to guard against biting the tongue; a hot bath should be ordered and the child undressed without delay, as a pin in his clothing may be at the bottom of the trouble. If the child can be put into a bath all over, except the head, that should be done. The water should be at blood heat (100° F.) and cloths wet in cold water should be applied to the head and changed as soon as they become at all warm. The child may remain in the bath ten minutes, or even longer, but when taken out no attempt should be made to dry him, but simply lay him between sheets in a soft, heated blanket, and on a bed, with his head a little raised. And allow him plenty of room to kick and writhe, only guarding him from falling off or hurting himself, and from cold. If the muscles be rigid or hands clenched, let them alone. If the full bath cannot be had quickly, then let the feet, and as much of the legs as possible be put into hot water, and in this case (not in the full bath) let two teaspoonfuls of ground mustard be stirred in the water. Apply cold wet cloths to the head, as in the full bath.

In case diarrhœa is the cause, or immediate precursor of the spasms, cold water should not be applied to the head.

Remove the cause of the trouble if it be known. Lance the gum if the tooth can be seen and is crowding through. Give an injection of half a pint or more of cold water, containing soap, if there be constipation. Do not rub the skin with alcohol, hartshorn, or anything else, unless a bruise or fall be the cause, in which case *Arnica* tincture diluted, one part to ten of water, may be applied to the injured part. *Camphor* may be held under the nose, and the best medicine internally is *Bell.*, especially if the face be flushed, the pupils dilated, and there have been noticed twitchings of the muscles during sleep. If a bruise or fall caused the trouble, give *Arnica*; if fright were the cause, give *Cham.*; if diarrhœa, give *China*. Dissolve the medicine in water (half a glassful) and give a teaspoonful every fifteen minutes if needed. Try not to be nervous or hasty, but act promptly, and allow the patient to be as quiet and undisturbed as possible.

Cholera Infantum and Summer Complaint are not the same disease by any means, although they have much in common, and together carry off thousands of infants every year, especially in the large cities. Cholera infantum is a nervous prostration, while summer complaint is an inflammation of the bowels. Both are characterized by diarrhœa, which is very exhausting, great thirst, high pulse, and vomiting; both are produced by improper food, combined with the unwholesome air found in cities in hot weather, the miasms

induced by putrefaction, and the prostrating effects of great heat, especially when sudden changes in the weather are experienced. Cholera infantum may attack an infant already suffering with summer complaint, or having diarrhœa, but its attack is always sudden and marked by great prostration, while summer complaint may begin gradually. The vomiting in the former is sudden, and may be the initial symptom; first food, if there be any in the stomach, then water. The stool is very watery from the start, and soon seems to be nothing but water, and it is shot out of the bowels with force and suddenness. The diaper is quickly wetted through. The pulse is high, but the skin is cold. The child is not hungry; but he cannot get enough to drink; will not let go the cup, and is restless, chiefly from thirst—there does not seem to be much pain. The child lies on his face, and the flies cannot be kept away from him, yet they do not seem to trouble him. In summer complaint the stools are watery, but they have some consistence like mush, and also some color; their number is very irregular, may be four one day and fifteen the next; there is high pulse and fever, with pain in the bowels, and with this disease the child will show symptoms of pain and fever before the vomiting or diarrhœa begins.

The grand remedy in both diseases is pure air. They are hardly known where pure air can always be had, even though the temperature reach one hundred degrees. And next to pure, country air, in value, is pure, wholesome, country food, especially milk. The treatment of these diseases by the household prescriber will, of course, only be undertaken during the interval that

must elapse before the physician can arrive, and the medicine to be used in both is *Chin.-Ars.*, of which a powder, as large as can be heaped on an old-fashioned three-cent piece, should be mixed with half a glass of water. If this combination, as made at the pharmacies, be not at hand, mix in the same glass *China* and *Arsenicum*, and, in either case, give a dose after each passage, together with a regular dose of a teaspoonful every two hours, and continue the medicine for at least a day after all signs of diarrhœa have disappeared.

Worms, as has been already remarked, should never be considered the occasion of any symptoms a child may present, unless the worms themselves have been seen. Too often children have been allowed to get into very serious, and even fatal conditions, before proper attention was given them, because it was thought that "worms" explained all that was wrong. Worms may sometimes be present, even though they do not appear in the passages from the bowels; but in repeated examinations they can scarcely fail to be detected at last.

The symptoms to which their presence gives rise are, usually, a dull leaden complexion, with especially dark streaks under the eyes, picking at the nostrils, foul breath, changeable and capricious appetite, and restlessness during sleep, with, sometimes, feverishness, pain in the bowels, and loss of flesh.

It should always be borne in mind that the difficulty with a child who has worms is not that they are in his body, but that his body retains them. We all take in germs and eggs which are capable, under favorable circumstances, of breeding worms; but we do not all have

worms simply because our bodies are not all favorable asylums for these creatures. The thing to be done, then, is not to injure and tear to pieces, as it were, the delicate body of the child by medicines intended to first kill and then drive out the unwelcome parasites ; but to endeavor to so medicate the patient that his body will become well, and able to repel the attacks of such intruders, and thus to become an unfit place of abode for them. To be sure this plan will not work with the tape-worm, who fastens his head firmly at one spot in the bowel, and sheds, from his tail, pieces that are capable of breeding many new worms ; but it is still the plan to be first tried, with all other varieties, at least.

In treating a case of worms the food should be wholesome and plain ; no pastry or rich cakes, but plenty of fresh fruits. The chief medicine in most cases is *Cina*, which should be given in water, a dose every four hours. Where the breath is bad, the mouth watery, the glands large, and there is a tendency to diarrhœa, give *Mercurius*. Where there are, or have been, eruptions, and worms are passed frequently, *Sulphur* should be selected. With pin-worms and seat-worms, causing much itching, injections of cold water containing a little salt, or of pure olive-oil, will be found useful. For tape-worm it would, perhaps, be best to consult a physician ; but the following plan may be tried first : Take half an ounce of pumpkin-seeds, remove the shells, and mash up the pulp. Mix this well with milk. After the child has fasted all day, give the pumpkin-seed and milk at night. In the morning give two teaspoonfuls of *Castor Oil*, and wait for the bowels

to move before taking breakfast. It is needless to remark that a very young child should not be put through such a plan of treatment. For a child over twelve years old the quantities mentioned should be doubled.

Croup is another disease whose treatment should always be in the hands of the physician. Those attacks are usually the least dangerous which come on at night, without the least warning having been given by symptoms of cold during the preceding day, as in them there is less probability that a membrane has formed. The disease is usually worse at night, and gets very much better during the daytime. It is almost restricted to childhood, and its attacks are due to the smallness of the air-passages in young children. It commonly begins as a cold, but at night the difficulty of breathing becomes very great and the cough is dry and has a peculiar muffled sound, so well known as to be described as "croupy."

The best thing to do is to paint the whole front of the neck with diluted tincture of *Iodine*. This should never be used more than half strength, even for adults, and should be purchased mixed with an equal portion of alcohol. For a very young child it should be further diluted with water, and applied by a brush to the whole front of the neck, from ear to ear, down to the collar-bone and up to the chin-bone. Use it once a day for three days, if needed, painting it on freely. The stain can be washed off later by a little ammonia in water. Until the doctor comes give *Aconite* in water, a teaspoonful every fifteen minutes, or, if the "sawing" breathing be marked, select *Spongia*. If the breathing should be more rattling, prefer *Hepar sulph.* A hot

foot-bath in which a teaspoonful of ground mustard has been stirred, and plenty of fresh air, are also to be recommended. A croupy child should be always restricted to a very light supper, particularly in winter time.

Asthma of Millar is a nervous disease whose symptoms are somewhat similar to those of croup, only the child has no cold. Its home-treatment should be begun as directed for croup, and a physician called.

Bronchitis is more dangerous with infants than with grown persons, because the smallness of the air-tubes renders them more liable to clogging, and because a very young child does not expectorate. Attacks commonly begin with cold in the head, which extends to the lower air-passages causing a cough. The child is unable to nurse because his breathing is too difficult. He is usually hoarse and coughs, but he has not the sawing breathing or the single muffled cough of croup. A simple attack involving the larger tubes may be treated by *Bryonia* where there is thirst, fever, and signs of pain in the chest with the cough. *Ipec.* will be better when there is much rattling of mucus heard, and wheezy breathing, especially if the child vomit after coughing. If there be considerable running from the nose with the cough, diarrhoea, and easy perspiration, *Mercurius* may be tried. The medicines should be mixed with half a glass of water and given in teaspoonful doses every hour or half hour. If the patient get worse under this treatment the case should be put into a physician's hands.

Pneumonia of the kind usual with young children commonly follows bronchitis, from which it may be distinguished by the higher fever, the greater pain with

the cough, and the peculiar moan with the breathing. It cannot safely be treated by domestic medication.

Measles is usually a disease of this period, although it may attack any age. It begins like a cold in the head, with running nose and eyes, sneezing, headache, restless sleep, thirst, and loss of appetite. Such symptoms appearing about a week or two after the child has been exposed to measles, will leave little doubt as to what is the matter; but when, three or four days later, the eruption appears, the nature of the complaint will be certain. The eruption comes first on face and neck, and spreads over the body. It reaches its height in about two days, and disappears in the order it appeared. At the disappearance of the eruption the patient is peculiarly liable to take cold, and this may lead to very serious consequences, even to loss of life. The eruption is distinguished from that of scarlet fever by pressing upon it a moment with the finger; on lifting the finger the redness will return from the centre to the circumference of the pressed place.

The patient should be placed in an upper room by himself, where he can have plenty of fresh air; but if the eyes be tender, they should, of course, be protected from too strong light. The food should be plain and rather light, and milk should be its chief ingredient. As much water as is wanted should be allowed, and fresh ripe fruit will do no harm. The chief medicine to use is *Gelsemium* in water, a teaspoonful of which may be given once in four hours. If the eruption does not come out well, or has a tendency to fade too quickly, *Bry.* should be used in a similar manner, and the same

remedy is wanted in case there is a troublesome or painful cough. It may be mixed with the *Gels.* in the same glass. If complications should appear, the chief attention should be given to them, and the measles trusted to care for themselves; but as these complications are often very dangerous when appearing with or after measles, they should be treated by a physician. Among them are croup, bronchitis, colic, and diarrhœa, inflammation of glands and of the ear and mouth, and even of the coverings of the brain. To guard against them, the patient should be considered convalescent for a week or ten days after the skin has ceased to come off, and should be encouraged to sleep as much as possible, day and night, and be protected from catching cold. During the whole course of the disease a sponge-bath in warm water should be given daily, only a part of the body being exposed at once, which should be dried and covered before proceeding to another part.

A discharge from the ears is often left after measles, and may result seriously if not cured. The ear should be washed with soap and warm water, and if necessary warm water may be thrown into it by a syringe, but it should never be scraped out with any hard instrument. If the discharge be thick and creamy, *Puls.* in water may be given, a tablespoonful dose night and morning. If the glands of the neck be swollen and the discharge offensive, give *Calc. carb.* in the same way; while for a thin discharge *Merc.* should be preferred.

Earache, where there is no discharge, may be treated by warming a little *Hamamelis* extract and put-

ting into it a single drop of the tincture of *Pulsatilla* and filling the ear with it, while the patient lies with his head on one side. It may be shaken out after three to five minutes, and hot, dry applications held at the side of the head. This may be repeated two or three times a day, and at the same time *Bell.* in water, a teaspoonful every half-hour, may be taken. Hard instruments of any kind should never be pushed into the ear, and cotton should only be worn in case there is actual disease or pain in the organ.

Limping should attract early attention, as it may mean that serious joint or spinal disease has begun its attack. While these affections cannot be treated by the home prescriber, a fact frequently overlooked may be mentioned here, namely, that a long foreskin will often cause a trouble so like hip-joint disease as to deceive expert physicians. Always see if this trouble be present, and if so, have the boy circumcised.

In general try to let the little child act out his nature. Don't keep him housed up, or dressed up, or artificially impeded in any way. Let him live out-of-doors as much as possible, and don't try to keep him clean. An old professor of insanity and nervous diseases used to say that he always hated to see a clean child and loved a dirty one. Let him learn through play and experience, and the loving help of parents and friends, never from books or in school till the second teeth come, if it can be avoided. Dread precocity in physical as well as in mental respects, and don't encourage the child even to walk till he makes the attempt himself. And although the masculine pronoun

has been used in all these general remarks, they apply with possibly even greater force to the little girls.

With regard to older children and their troubles—**Second dentition** usually takes care of itself, and is completed between the seventh and fourteenth year, except for the wisdom teeth, which appear five or six years later. Very few of the diseases of this period can be said to belong to it exclusively, as most of them may come earlier or later in life, but they come more frequently in these years than at any other time, and their treatment will not materially differ, come when they may. In this connection is perhaps the most convenient place to mention

Toothache, although only toothless infancy and old age can consider themselves safe from its attacks. Long lists of drugs are to be found in some books, among which the patient may be able to find one that will cure the toothache, if he do not get a headache before the discovery is made. The best treatment is the preventive. Keep the general health up to the best standard, avoid very hot food and too many sweets, and wash and brush the teeth often enough to keep them perfectly clean, using for the purpose sour milk, or a little sugar-of-milk as a tooth-powder. Many of the proprietary tooth-powders, soaps, and washes contain hurtful ingredients; but the author may perhaps be pardoned if at this point he endorse the "Saponaceous Dentifrice," made by his relatives, Hanchett & Co., of Syracuse, N. Y., which he believes now receives its first public advertisement of any kind, but which has been in ever-increasing favor, with those who know it,

for nearly half a century. The tooth-brush used should not be too soft, and should be carried over all parts of the teeth and be given a motion parallel to the length of the teeth as well as across them. Black spots on the teeth, or cavities in them, should send the patient to the dentist at once, as nothing will fully replace a tooth once lost, and it can be best saved when first attacked. Even after it has begun to ache a skilful dentist will often be able to save it, and, in case of toothache, pulling the tooth should only be thought of as a last resort. It is not always possible for the patient to say in just which tooth the disease is, as the pain may be communicated to sound teeth, and even to the face and ear, when the sole trouble is in a single tooth.

For jumping, throbbing pain apply dry heat to the cheek by means of a bag of hot salt held in a napkin, and give a teaspoonful dose of a solution of *Bell.* in water every hour or two. If the pain be worse at night, from hot applications, and from even the slightest movement, and if the teeth feel loose but are not really so, give *Bry.* in the same way. Where the teeth are really loose, the mouth watery, and pain worse at night select *Mercurius*, and if the teeth be black and tend to crumble away easily, the medicine should be *Staphis-agria*. If the trouble be caused by dampness or damp weather, use *Tabacum*. For a very young child *Chamomilla* will often act best. If there be a cavity in the tooth, it should be cleared of food by using a wire, about the end of which cotton thread has been wrapped. Never use a metallic toothpick or a pin to pick the teeth; always use a quill or stick of wood. If there be

a visible cavity in the tooth, a bit of cotton may be dipped in the strong mother tincture of *Tabacum* and inserted into it, but great care must be used not to swallow any of the *Tabacum*, always spitting it out if it become mixed with the saliva. This remedy is not to be used with young children. The cotton should be put into, and taken from, the tooth with forceps or tweezers.

Gum-boils are usually easily recognized. If they are painful and throbbing, give *Bell.* If one can be recognized before it is fully developed, give *Hepar sulph.* And if one is slow in healing and discharges for some time, give *Sil.* *Bell.* may be given in water, a teaspoonful every hour; the other medicines should be given but twice a day, in water, a tablespoonful at a dose. When the boil is full of matter and nearly ready to break, it is better to open it with a sharp, clean knife.

Swelling back of the jaws and in front of the ear, coming on after a day or two of general discomfort and ill-feeling, usually means **Mumps**, a contagious disease, chiefly of damp seasons, and making a patient feel very uncomfortable. The patient should be guarded from taking cold, as the disease is very apt to suddenly leave the glands of the face and go to others more important, as the testicles or ovaries. The trouble is usually over within two weeks, during which time the patient should be kept warm, and fed on a light but nourishing diet of rice, farina, oatmeal, bread and milk, and the bowels should be kept open by injections of cold water, using from a pint to a quart at once. The swollen parts should be painted once a day for three days with dilute tincture of iodine, as directed in

the treatment of croup, and after an interval of three days, if needed, the painting may be resumed. The best medicines will be *Bell.* and *Merc. prot.* which should be mixed in a tumbler of water and given in doses of one or two teaspoonfuls, according to the age of the patient, every two hours. Keep the face and neck warm by wrapping a handkerchief around the swollen parts.

Children's enlarged tonsils, as a rule, can be cured without cutting, or burning by caustic, if time enough be given to persistent and uninterrupted work with medicines. The earlier the trouble is noticed and the treatment begun, the quicker a cure can be effected; but a pair of enlarged tonsils which have been in that condition already for many months, without pain or inflammation, cannot be reduced to their natural size under a month or more at best. The condition results in thick speech, snoring in sleep, and sometimes difficulty in swallowing. The best medicine to give is *Baryta iod.*, as much as can be heaped on an old-fashioned three-cent piece being given at a dose, dry on the tongue, morning and night. Or if other glands throughout the body be enlarged (they may be felt under the skin as movable lumps, especially about the abdomen or jaws) *Calc. iod.* may be better, given in the same way. Iodine diluted may be painted on the neck, as already directed in the treatment of croup, using it once a day for three days, and omitting each alternate three days. If the skin is taken off, the iodine ought to be further diluted, and may be used as directed for two or three months.

Diphtheria can be very much benefited by the same application of iodine to the neck, and it is a proper thing to do before the physician arrives. In this disease there is a discharge upon the tonsils, at first in little points, which soon spread and form a true membrane, which cannot be removed without causing the parts underneath to bleed slightly, while in quinsy the discharge is nothing but white or yellowish matter, which can be wiped off with perfect ease. Then a little patient will give many signs of sickness in the early hours of diphtheria which are absent in quinsy, the former being a very prostrating and debilitating trouble, one peculiarity of which is the offensive breath of the patient. The treatment must be wholly in charge of a physician.

Scarlet fever, too, gives a sore throat as one of its earliest and most common symptoms. It is usually associated with headache, backache, coated tongue, and fever, with high pulse. No harm can result from giving a teaspoonful dose of *Bell.* in water once in two hours, if the physician should be detained.

Whooping-Cough, perhaps, belongs to the period under consideration, although infants frequently have it as well as older persons. It is well to bear in mind that it frequently attacks a person more than once, and when interrupted by the heat of summer it often returns in the fall. It is undoubtedly contagious, and probably can be communicated during any of its stages. Certainly during its decline, and until the last vestige of cough has disappeared, the patient should be as carefully guarded, to prevent, if possible, the spread of the disease, as during the height of the paroxysms.

For the first few days, and perhaps for the first three weeks, there is nothing about the disease to distinguish it from an ordinary cold. There is a good deal of sneezing, and the cough is usually worse at night. If there be cases of whooping-cough in the neighborhood, and such symptoms appear, it makes it pretty sure that we shall soon have the fully developed disease. At this stage, if the cough be painful and with much thirst, give *Bry.* in water, a teaspoonful dose every two hours. If there be symptoms of fever, with sneezing and cold in the head, prefer *Acon.* given in the same way.

In the second or convulsive stage the remarkable and easily known and remembered "whoop" makes its appearance. It is produced by drawing in the breath through a narrow, almost closed windpipe, after a fit of coughing has nearly emptied the lungs of all air. The attack is preceded by tickling in the throat, which gives the child warning of what is coming, and leads him to run to his mother, or to grasp a chair or some firm article to which he clings during the paroxysm. A violent attack causes the vessels of the face and neck to fill up and swell, the face turns purple, the eyes seem to start from their sockets, often the nose bleeds, and, especially in very young children and infants, the congestion to the head results in general convulsions—the most dangerous thing about the disease. More or less mucus is brought up by the effort of coughing, and the spasm very frequently ends in vomiting. The spasms may come as often as once in five or ten minutes, or may be as infrequent as four or five times a day. They are commonly worse at night, waking the child from sleep,

and seeming often as if they would result in suffocation. This stage lasts from three to six weeks, and is followed by a stage of decline which may even last months, but usually does not extend over more than from three to five weeks, and during which the spasms gradually decrease in frequency and violence.

The best medicines for home use, in the spasmodic stage, are *Mephitis*, when the danger of suffocation seems very great, the face turns blue, and every paroxysm ends in vomiting; and *Drosera* when the cough is hoarse and loud, there is bleeding from the nose, and possibly chilliness or fever. Give these medicines in water, a teaspoonful at a dose, repeated once every half-hour, hour, or two hours, as needed. The plan of painting the neck with dilute tincture of iodine once a day for three days, and repeating on alternate periods of three days each, as advised in the treatment of croup, may also be advantageously tried in whooping-cough, and iodine ought also to be painted over the upper third of the backbone, as that is where the disease really centres. Guard the patient from cold, and keep up the strength with abundant and nourishing food, and call a physician if complications arise.

Chicken-Pox (Varicella) rarely requires any treatment, and rarely attacks the same person twice. It is usually over within a week, or ten days at the longest. The eruption comes out after a day of mild fever, sometimes a little longer or shorter time being sufficient to bring out the blisters. Occasionally there is a good deal of fever; but this is exceptional. The eruption comes in successive crops, and the individual blisters

are well rounded, while those of small-pox are depressed in the centre. Small-pox always has a terrible back-ache preceding the eruption. As the blisters dry up and fall off they may leave a slight scar, to avoid which they should not be scratched or broken. The disease is contagious, but not in any way dangerous. If any medicine be required, *Acon.* in water may be given where the fever is high, with restlessness and thirst; a teaspoonful every two hours. *Bry.*, given in the same way, may be used if there be cough, and the eruption does not come out well. Feed the patient chiefly on milk, and if the attack be in winter, do not let him go out in the cold too soon after the symptoms subside.

Shingles is an eruption of blisters along the course of a nerve, which rarely attacks the same person more than once. There is usually some fever and pain before the outbreak, which is relieved when the blisters appear, or there may be itching and stinging in the skin for a day or two before the eruption comes out. The trouble is usually on one side of the body only, and stops short at the middle line; rarely it appears on both sides at once. Its most frequent location is in the spaces between the ribs, but it may come on the face or elsewhere. The worst thing about it is, that, when it leaves, a troublesome neuralgia may remain in its place. The blisters should be painted with *Collodion* to protect them. This may be obtained at any drug store, and applied in five or six coats, one above the other, each added as the last dries, which it does in a moment or two. Give a teaspoonful of *Rhus tox.* in water, every three or four hours.

Ringworm is an eruption of little blisters which come out in the form of a circle. The place where they are about to appear, is first red and itching, then the blisters rise and gradually spread outward till they cover a patch from one to two inches in diameter. As new blisters appear at the edge of the ring, the older ones dry into a scaly condition. The trouble may be on the body or scalp, and on the latter it either makes the hairs brittle, so that they break off, or it loosens them so that they fall out from the roots. Sometimes the disease gets well of itself in a week or two, and sometimes scabs form and the process goes on in a very persistent fashion. The trouble is contagious, and is best combated in the household by great cleanliness; as a preventive, washing the hair occasionally with borax water, and if ringworm appear, giving a tablespoonful dose of *Sulphur* (eight globules dissolved in half a glass of water) morning and night. If the disease become seated, it should be treated by a physician, as it is due to a parasite which must be killed, and the substances necessary to use for such a purpose are too dangerous for domestic medicines.

Warts frequently disfigure the hands of children, and may be removed by paring them closely, moistening them slightly, and touching them once a day with a stick of lunar caustic. A dose of *Ant. crud.*, given daily, a powder as large as can be piled on an old-fashioned three cent piece being used dry on the tongue, will help in their permanent removal; and they are also frequently cured by painting them three times a day with the mother tincture of *Thuja*.

Lice are frequently conveyed from the head of one child to another, and are certainly very unwelcome guests. They may be destroyed by using an ointment made of 50 parts of cosmoline or vaseline and 10 parts of powdered *Staphisagria*. Have the ointment made by a druggist. After combing the head with a fine-toothed comb, and washing it with borax and water, apply this ointment thoroughly. It is, of course, better that the hair should be first cut short, and whatever is cut off should be carefully caught and burned.

PART II.

FROM PUBERTY TO MATRIMONY.

CHAPTER VI.

THE YOUTH.

And now this boy, whom we have watched through so many and varied troubles of the flesh, from his earliest arrival in the world, has reached a period in his life marked by great and important changes. His childhood is ended, and he now enters the transition period, which will end some years hence, when he shall have arrived at the full maturity of manhood.

All the great crises of physical life are periods of especial importance and danger. During their continuance nature seems to devote her energies to the bringing about of some marked and noticeable event, and to neglect in a measure the more commonplace and routine processes of animal life, and, as a consequence, at these times disease finds the body especially vulnerable, and errors and indiscretions are capable of inducing far more permanent and lasting ill-effects than they would

at other times. Such periods we find at teething, both first and second, at puberty, at virility, at the change of life, at the "grand climax," and at other events not so marked. Of these periods no one can be mentioned needing such careful attention as puberty—not because more persons die at that time than at the other crises, but because it extends over so long a time, stands in such a relation to life, and involves such vital matters in the mental, moral, and physical sphere. It is now that the child begins to feel restive under parental guidance and restraint; it is now that questions suggest themselves which are perfectly natural and legitimate, but which stand in such a relation to custom and prejudice that their answers are not sought, or many times are sought in vain, from parents; and in either case are found, but not always where wise parents would prefer. It is now, also, that the ambition to be manlike, guided by immature judgment, leads too often and too readily to the copying of that which is done by those who have the outward semblance of men, under the false impression that it is manly. And, finally, the period extends over so long a time that watchfulness tires and vigilance slumbers; and hence it so frequently happens that seeds of vice and disease are sown, just before the threshold of manhood is reached, which bear bitter fruit throughout after-life.

The earliest pronounced sign of the period under discussion is a growth of hair at the lower part of the abdomen; at about the same time the testicles begin their activity and secrete in an imperfect way the fluid which, later, gives the procreative power; the other special or-

gans of sex grow and attract the attention of their owner, then the voice changes, the hair upon the face makes its appearance, the wisdom-teeth are cut, the full stature is attained, and lastly, the internal organs gain their full growth—the brain, spine, lungs, and heart not being fully matured before the thirty-fifth year of life. Happy will the mother be who can retain her influence and guide her boy through this formative period. Happy will the boy be who is blessed with a mother wise enough to see that this is the period when her office, though least appreciated, is of most importance, and to overcome the fashions and prejudices of modern American society, which conspire to prevent both preparation for, and fulfilment of, the duties of motherhood in relation to youth in his teens.

It is simply impossible for a boy to grow to manhood without learning something, either bad or good, about his sexual organs. Involuntary processes taking place in them cannot but attract his attention, the irrepressible disposition of the boy-nature to make a sport out of every function, even the necessary emptying of his bladder, will of itself lead to a comparison of experiences with other boys, and a boy must not only be absolutely isolated from other boys, he must be kept where no dogs, cats, or other animals can attract his attention or awaken his curiosity, and where no newspapers with mysterious advertisements can reach his eyes, if he is to be limited to his own experiences for his knowledge of his own body. The monastic system has been proven a failure in every direction; but if there be one direction in which it is a greater failure than in any other, it is in that of

securing pure and chaste treatment of the body. "I pray not that Thou shouldst take them out of the world, but that Thou shouldst keep them from the evil," are more than human words.

Such commonplace propositions would seem entirely out of place in a volume like the present, were not the evidence overwhelming that thousands upon thousands of parents leave their children without the slightest instruction upon sexual subjects, and excuse themselves on the ground that they wished their children to know nothing about such things, for fear that knowledge of them would lead to abuse of the organs, if not to actual unchastity of action. They *will* learn; nothing can prevent it. The author has become personally acquainted with several cases, even in this enlightened State of New York, in which children of intelligent and Christian families, less than ten years of age, have accomplished things which would, if generally known, have shocked the community and shamed their parents. Nor were these cases all in city life. Bad teaching can only be forestalled by good, and the good teaching should be both honest and true to nature. The evils of partial and false information upon these subjects are so widespread and deep-rooted that it is hard to know how or where to begin the work of uprooting them. There is no lack of parents in this land, who, in spite of the fact that they have offspring, are yet very ignorant of the true physical relations of the sexes in marriage, and the false shame with which the sexual organs are regarded by many cultured persons puts a great barrier in the way of the proper dissemination of information. The

Creator has made no mistake in providing for the preservation of the species, nor has He in any way disgraced or dishonored His children by providing them with these organs, and with an almost irresistible inclination to bring them into action. It is our misuse of those organs, our violations of His laws regarding them, of which we should be heartily ashamed, so ashamed that we will at once set about removing the ignorance concerning them, which unquestionably is the fertile soil in which much of the sin and shame finds nourishment and takes root.

Reform in this matter should begin at the beginning. What child has not asked his mother where the baby brother came from? And how many have had the precious bond of trust and confidence shaken a little later in life, by finding out that the mother intentionally deceived them when she answered, perhaps, that an angel had flown in at the window and brought it to her. Refuse to answer such questions if you will, but see to it that what you tell is the truth, and nothing but the truth, so far as it goes. And teach both boys and girls, in their earliest days, that the sexual organs are to be handled only for washing; that anything more is both uncleanly and hurts these parts, and may make them incapable of carrying off the water as they should. Explain that this water cleans the body, and if it be not thrown out just as it should be, it will leave in the body things which will make it sick. Promise more explanation when they are older and better able to understand. Keep the children active and healthy; see that they have companions, and that these companions

are of the right sort, of about the same age, and from careful households; and see, too, that enough is provided them to do to keep them out of mischief, and that what is provided is in the nature of play, and is both active and in abundant variety. Nor can too much care be given to the selection of a nurse. Thousands of nurses will put moral poison deliberately into the minds of the youngest children, and will systematically set to work to teach them to play with the sexual organs.

And do not wait till a boy has reached his fifteenth year before giving him more information. It is a mistake to believe that because the procreative fluid is not formed till about that time that, therefore, none of the temptations and instincts which lead to self-abuse can be earlier experienced. Many and many a boy has acquired very bad habits before the functional activity of the testicles was aroused. The best plan is to strive to keep your hold on the boy's confidence, to take such an interest in all that interests him that his first thought will be to come to you with whatever amuses, perplexes, or concerns him in any way. A wise parent will use such a hold on a boy's mind to direct it away from sexual thoughts till nature's time comes for the awakening of them, and when that time comes such a parent will be the first to perceive it. Then answer his questions fairly and honestly.

Many things that should be taught the growing boy are, unfortunately, too often unknown to his parents. What those things are, and how they can best be presented to the minds of the young, so as to guard them from temptation without stimulating unwholesome

imaginings, is a matter that cannot be presented in this place without giving offence to many who would otherwise find the present a helpful volume for family use. Out of respect for the feelings of such, the author has decided to bind in a separate volume the chapters on "SEXUAL HEALTH," that those who choose may keep such subjects in their own hands, while using this volume as a household guide. But in adopting this course the author wishes to protest against the prevalent idea that it is dangerous to inform young people on these subjects. If such a danger exist it is overbalanced many times by the dangers of that ignorance which leaves open avenues of temptation reaching every young person in every home, no matter how sacredly guarded. It is the author's intention, in speaking of matters relating to sexual health, to do so fully and frankly, and by putting what he has to say in a separate volume, he leaves it to the discretion of his readers to make such use of the information given as shall best accord with their own judgments and satisfy their own consciences. The publisher of this volume will supply copies of the other and companion work.

It is in this period of youth that habits of using tobacco and liquors are often formed, to the lasting detriment of the body. The habits once formed are very apt to be retained in manhood ; and thus it is that the growing boy comes to think of them as manly because they are indulged by men. No one can doubt that the tobacco habit among boys would soon disappear if men were to give up the use of the weed, and the authority does not exist that does not condemn the habit

as harmful to youth, whatever differences of opinion may be held regarding its effects upon adults. Here, then, is a lesson for men that every true father will not fail to take to heart.

With regard to these, as to all other bad habits, the best treatment is the preventive, and in making that effective the chief reliance is to be placed upon education. Alcohol can be more appropriately discussed in a later chapter; but the man who acquires the tobacco habit after reaching full maturity, is certainly singular and exceptional in his lack of perception of what is wholesome, cleanly, and economical. The discussion of that interference with health belongs to the period of youth; but it could at least do them no harm if those who have passed boyhood and youth would seriously study the physical, mental, and moral effects that can be definitely traced home to the habit of using tobacco in some of its various forms.

As a rule smoking is the first of these habits to be acquired, and is now so generally diffused over the world as to seem to many to be almost a necessity to the human race—a position the fallacy of which is apparent the moment it is considered what a vast number of women live without it. There can be no doubt that the use of tobacco holds in check those processes of change in the tissues of the body which in the aggregate make up all that can be seen and known of its life; that thus it hinders the waste of these tissues, and by that means produces the most serious of its bad effects, as well as the only effect that has with any show of reason been considered advantageous, that, namely, of re-

ducing the amount of food necessary for the sustenance of the body. If tissue-changes do not go on, or go on but slowly, food for such changes will not be required, hence the poor man can reduce his expense for board by using tobacco ; but, on the other hand, the tissues will be made up of worn-out material in large proportion, and this cannot withstand the attacks of disease, or do work so well as can new tissue. Here, then, lies the chief physiological danger of tobacco. It puts the body out of condition to withstand the attacks of disease, work, or worry, and in this way is really at the bottom of thousands of deaths which are attributed to other causes that would have been insufficient of themselves to have induced death. To be sure such attacks do not always come, and tobacco-users reach old age, exactly as a rotten tree sometimes stands in the forest through the storms of many years. But as rot is bad for trees so is tobacco bad for human bodies, and it undoubtedly causes *more* direct physiological mischief and death, take this country over, than do *both opium and alcohol put together*. The only trouble is, its work is not clearly traced home and charged up to it.

The diseases actually produced by tobacco vary greatly in different individuals, and seem to have a decided relation to the age at which the habit is formed. The younger a person is when he learns the use of the weed, the more certain he is to suffer from it, and no one who acquires the habit before the maturity of his body can expect to escape harm from it. Tobacco produces no organic disease ; and many persons escape specific functional effects other than the general depression

already mentioned, which is usually made evident by a persistently slow pulse. The functional disorders produced are due to the influence of the weed on the nervous centres which control the whole body, and to the local depositing of those elements that can be dissolved from the quid or taken up by the smoke. Of the nervous disorders the most common are irritability and weakness of the heart, and dyspepsia. The effects upon the heart are such that it is often very difficult to say whether organic disease of that organ be present or not, until fully six months of total abstinence from tobacco in every form shall have given a chance for the narcotism of the system to pass off. The local effects most frequent are increased dryness of the mucous membranes, due to ammonia, and creating a thirst which it is very difficult to satisfy with anything non-alcoholic; the deposit of carbon on the throat and air-passages, causing increased secretion and foul expectoration; and irritation of the tonsils and throat generally, causing a persistent, distressing cough, and difficulty in swallowing. It is doubtful if enough nicotine (which is very poisonous) is absorbed by ordinary use of tobacco to produce any appreciable effect upon those who are habituated to it. But while true heart disease, epilepsy, and organic lung diseases are not produced by tobacco, the treatment of those difficulties is absolutely hopeless and useless so long as the tobacco habit is continued.

But even were not all this true, it would seem that any boy who was trained to a proper appreciation of what was clean and pure in air, breath, mucous membranes, teeth, and floors, would find very little tempta-

tion in this most expensive and useless form of filth. The evil effects both of tobacco and alcohol can be learned from many books, and even from any encyclopædia, if observation be not enough to teach them. The object of these lines is merely to emphasize the truth of the testimony against these vile poisons, and to put in a plea for the early teaching of those who may think their use manly what their real consequences are. The boy who comes of age without having learned to smoke is far less likely to begin the practice than he was earlier in life.

CHAPTER VII.

THE MAIDEN.

Up to this point, with but few exceptions, the masculine pronoun has been used in speaking of the much afflicted patient, whose history has been traced in the preceding pages. This has been done without any intention of slighting the twin-sister of our hero, but merely with a view to keeping the brother as contented as possible under his numerous disorders, by allowing him the gratification of frequent mention in print. All that was said in the first five chapters, with but insignificant exceptions, applies as well to the girl as to the boy, although she has been far from living the same life, or passing through the same experiences as her brother. We come now to consider the changes that occur in the sister's life in the transition period between girlhood and womanhood.

The changes which take place in the body and functions of the girl at the crisis of puberty are as marked and important as those which correspond to them in her brother, and if she do not acquire a lower voice and a beard, she yet gives signs as unmistakable of budding womanhood, in the development of her figure, in her carriage, manners, and voice.

The girl is usually a year or so in advance of her brother in meeting the crisis of puberty, still more so in attaining developed womanhood, and she reaches the climax ten years, if not more, in advance of him; yet her whole life is likely to be fully as long as, if not even a little longer than, his. Between her twelfth and sixteenth year usually, in this climate, will begin the function of menstruation, to continue with greater or less regularity, and with the probability of some temporary interruptions, for rather more than thirty years. This function, known as the period, or monthly sickness, is the evidence that the ovaries have commenced to mature and cast off germs, which, under certain circumstances, may become new human beings; and that blood is being sent to the womb, which, if required, may be used by nature in providing a temporary resting-place and nourishment for that germ while it is being fitted to cope with the conditions of life as an independent creature.

The menses appear at very different ages with different persons and in different climates; and right here is the proper place to say that their non-appearance is no occasion whatever for a resort to medical treatment, either domestic or professional, unless other symptoms are present indicating some disturbance of bodily function. If the menses do not appear till the girl is twenty, or even fifty, it is not a matter for medication unless she be otherwise sick.

This flow once established should recur regularly; but what the interval shall be, and how long the flow shall continue, nature will determine in each case by

itself. Some women have a regular period every two weeks and are healthy, others have one every six weeks and are healthy; with some the healthy flow lasts two days, with others, ten; some women lose two or three tablespoonfuls of blood, others, half a pint. Each woman is a law to herself, and soon learns what regularity means for her; but, as a rule, it may be said that the period returns once in twenty-eight days, and lasts five days. The earliest and latest periods of life are pretty sure to be more or less irregular.

Nature has undoubtedly designed woman with an eye chiefly to the bearing and rearing of children. The organs concerned in this function are the ones both having most powerful influence upon the health of the body generally, and themselves most speedily and powerfully influenced by the conditions present anywhere else in the body. A slight deviation from the normal condition of things in the sexual organs may cause insanity, hysteria, headache, bleedings from nose, mouth, lungs, stomach, or bowels, toothache, disturbed digestion, or almost any other symptom. Fear, joy, or any other emotion may arrest the menses or may restore them when otherwise interrupted. An observing physician has remarked with much truth that a woman is always either preparing for, passing through, or recovering from her monthly period, and she is a different creature in the three states.

In view of these facts, and of what was said at the beginning of the last chapter regarding the crises of life, it may easily be inferred that at no time in her life will the young woman need closer or wiser attention than at

puberty. Just now the womb and its appendages are in a most delicate and immature condition, and they are going through processes which receive the whole force that nature can direct to them. It follows, then, that at this time what would ordinarily be regarded as most commonplace duties should be held in abeyance, and entirely surrendered at the slightest hint from nature that she cannot spare vital force to attend to them at present.

When a girl has arrived at the age at which her mother began to menstruate, she ought to be watched for the first signs of the establishment of this function, if none have been noticed earlier, and at their appearance she should be allowed to give up attendance upon school, all study, every exertion, either in play or work, especially all pianoforte practice, and be encouraged to lie down most of the time, till the first period is safely over; and the same plan should be adopted at each succeeding period until the function shall have become established and regular. If she be specially ambitious and earnest in school, or any other work, she should not merely be allowed, she should be required, to suspend it for the time being. Girls often are stimulated by teachers or their own ambition to direct power to their brain-work, and to neglect what they ignorantly consider the temporary and insignificant ill-feelings, which they fancy that they can and should suppress by will-power. This mistake will cost years, and perhaps a lifetime, of weakness, suffering, and misery, which may be avoided by devoting a few weeks, months, or even a year or two, to establishing the body on a foundation of solid health

that will permit the pursuit of favorite studies far more successfully later than at this period.

And in all respects the hints of nature at this time should be followed. If the girl want no breakfast, don't ask her the second time to eat one. It may be well enough to medicate such a condition, but certainly the worst cure for loss of appetite is food. Probably the nerve-force usually spent in digestion is required to establish menstruation, and if so, food in the stomach will but injure that organ and do neither menstruation nor the patient generally anything but harm. Let her have a teaspoonful every two hours of a solution of *Pulsatilla* in water.

The girl should be particularly cautioned against cold bathing at this time, and, in fact, throughout life cold baths should be omitted during the periods. And all physical exertion, as in long walks, lawn-tennis, sweeping, and the like should be laid aside, and it would even be better to recline most of the time during the continuance of the first periods, although between them such a course would ordinarily not be necessary.

If the first menses do not appear, and at the time when they are expected other symptoms do come on, the cause of the trouble should be sought without delay. Sometimes the membrane which covers in the vagina is without an opening. This condition can only be discovered by a local examination, which, of course, had far better be made by the mother than by any physician. And the condition is usually not obscure. The girl has pain in the back and loins, disturbed appetite, and other ill feelings betokening the establish-

ment of the menses, but no flow appears. If this should occur several months in succession, the flow, being neither absorbed nor discharged, will fill the vagina and begin to distend the womb, causing constipation, difficult passage of water, sore and enlarged breasts, and, in time, a swelling of the lower part of the belly, with pains very like those of labor. Examination may show the vagina tightly closed, and if such a condition be found, surgical treatment will be necessary.

Sometimes, instead of the menses, a discharge of blood occurs from the nose, lungs, stomach, or bowels. The sensations of the patient may indicate that the period is about to come on; but it does not appear, or the flow is very scanty. This does not always indicate disease in the organs from which the blood comes; but it does indicate a weakness which may be the precursor of disease in them. Usually the best medicine in this condition is *Bry.*, which should be given in water, a teaspoonful every two hours during the period, and after it a tablespoonful twice a day until the time for the next flow. Under such circumstances the patient should be kept quiet, and carefully nursed and fed till the menses are well and properly established.

If the menses fail to appear as they should when there is no visible obstruction to their flow, and the girl is pale, fat, flabby, has poor digestion, is constipated, and lacks vitality generally, give her *Calc. carb.* in water, a tablespoonful morning and night. If she be chilly, has no appetite, feels better out of doors, but does not like the exertion of going out, and has pains which are constantly changing from one place to an-

other, give *Puls.* in water, a tablespoonful four times a day. If she have sweating feet, hot head, dizziness, tendency to boils, and itching or soreness about the sexual organs, with failure of menses to appear, give *Sil.* twice daily, as directed for *Calc. carb.* See that the patient lives and sleeps in well-aired rooms ; keeps no late hours ; eats what she likes, so that it is wholesome food, not too fat or rich, certainly not spiced ; eats regularly in case she have appetite, and is allowed to wait till she has one if she have none, and is encouraged to rest much and allowed to devote all the energies of her body to the great work nature is attempting to begin. And if, after she has had one or two periods, they fail to reappear at the proper time, or become very scanty, or take the form of a discharge of blood from other organs, the treatment should be much the same. While cold bathing, even of the feet, during a period will often suppress the menstrual flow, a warm foot-bath will often bring it on even a day or two before the regular time, and the use of the warm foot-bath, in which two teaspoonfuls of mustard have been dissolved, is to be advised as an aid to establishing this flow (110° F., thirty minutes).

At about the time the menses should appear, and often in connection with the earliest periods, girls are apt to develop conditions which, though present earlier in a mild or potential form, are aggravated or made noticeable by the demands laid upon the body in establishing this function. The so-called "**Green Sickness**" is such a condition, due to nervous disorder and defects in the blood-making or circulating organs, and made active

by the directing of unusual force and nourishment to the sexual organs. The periods may, themselves, be either scanty or profuse, the former usually in those inclined to be fleshy and inactive, the latter in the nervous, ambitious, and active, who are afflicted by the defects of general growth of internal organs, which primarily cause this disease. The patient is melancholy, irritable, sulky, wants to be alone; is put out of breath by any exertion, such as running up-stairs; is pale, or has even a yellowish or greenish hue; has a very fickle appetite, if any; refuses ordinary food, and may be made sick by trying to eat wholesome food to which she has a repugnance; yet she may crave most outlandish and indigestible articles like chalk, slate-pencils, lobsters, or oily nuts, and she will seem to digest well enough such food as she craves, however heavy and unsuitable it may seem. She may even manifest an ability to do, without tiring, something that excites and interests her, while simple exertions that are uninteresting may cause her to faint. Such a girl is not to be thought selfish and obstinate, and she is to be thought sick, and sick enough to be taken to a doctor. And it is to be hoped that she will not be taken to a physician who fancies that he has done his whole duty when he has ordered some preparation of iron, forgetful, or ignorant of the fact that Trousseau, who first introduced this practice, afterward himself condemned it as hurtful, and even sometimes dangerous, to life. Not that iron is not in many cases exactly the best remedy, for it is; but that it is more frequently exactly the worst remedy, because it actually does harm in seeming to do good.

The home-treatment of this trouble will consist in allowing entire rest, securing cheerful diversions and companions, tempting, but not forcing the appetite with wholesome food, prepared in accordance with such hints as the patient's cravings afford, and in providing plenty of fresh air and a proper medicine. Such a patient should consult her feelings and inclinations with regard to exertions, provided they do not lead her to attempt too much that is taxing or exciting, thus exhausting herself and preventing sleep. She should be invited and attracted into social intercourse, but never forced—moping very soon loses its attractions, if it be permitted without interruption or after-comment; and while outlandish and indigestible things should not be allowed, good food should be provided, but *not* urged upon the patient; and if she crave chalk and slate-pencils, oatmeal and whole wheat bread, containing abundance of lime salts, should be advised as a substitute. The best medicines will be *Calc. carb.* if the patient be weak, listless, flabby, with cold hands and feet, pale face, and irregular, rather profuse menses; *Puls.*, if she have scanty menses, with pain in back and loins, ever changing pains throughout the body, chilliness, a disgust for fat foods, and feels better in fresh air; *Sepia*, if she be dark, nervous, delicate, despondent, and of weak memory, discouraged, and with bearing-down pains during her periods, which are irregular. If speedy improvement do not follow these medicines, given four times a day in water, a tablespoonful at a dose, consult a physician. The condition is usually curable, but sometimes leads to other and fatal diseases.

Difficult or painful menstruation is a condition common enough with young women, although, perhaps, more frequent among their older sisters. It sometimes occasions discomfort during the whole period of the flow, sometimes for the first day or two, or for some days before, is sometimes intermittent and sometimes constant. The pain may be local and of various kinds; it may be a colic affecting the bowels, and it may be an aching in the back, loins, or head. It may be accompanied by the discharge of a membrane from the womb; by very profuse, very scanty, or very changeable flow; and it may be caused by taking cold, by getting the feet wet, by exhaustion, or imprudent conduct, by local deformities, or by other diseases.

Lying down either on the side, back, or face, according to the patient's feeling, will be the first thing to advise in regard to treatment. If the bowels are loaded, an injection of water, warm, in this condition, and containing some red castile soap, should be taken to clear them out. From a pint to a quart may be used. If the flow be scanty, hot fomentations to the spine will be of the utmost service, and should be used at the highest temperature that can be borne. In preparing these it is absolutely essential that a good thermometer be used, and one that will register up to the boiling-point of water. Prepare the bed by placing a rubber sheet or waterproof under the patient, who must be entirely undressed. Have ready a piece of blanket large enough to make a pretty solid roll, eighteen inches long and three to four inches in diameter. Then bring to the bedside a pail containing hot water of exactly 115° F. Do not guess

at this, or any other temperature, but test by the thermometer, and add hot or cold water, stirring well, till the right figure is indicated. Dip the flannel in this water, wring it out, not too dry, but so it shall not drip, and while the patient sits up in bed apply it along the length of the backbone. Do this without delay, and hold it in place till the patient has time to lie back upon it, as it rests against the rubber sheet. All this work of applying the cloth should be done in an instant, so that the cloth will not have time to cool, and then the patient should be covered warmly and directed to lie quietly on the cloth for from eight to ten minutes. The cloth may feel a little hot at the first touch, but in an instant it will be pleasant, and there is no danger of burning the skin with such a heat. This cloth should be followed immediately by another and hotter one. After the eight or ten minutes are passed, bring the hot-water pail again to the bedside, but this time the water in it must be 120° F. Wring out the cloth from this and apply exactly as before. After another period of ten minutes repeat once more, using water at 125° F., and always get the temperature by the thermometer, never by guess. This will make the whole treatment last half an hour, and after the last cloth has been applied for ten minutes, water should be brought which is from 95° to 100° F., and with this the back should be sponged off quickly, dried, and the patient either suffered to lie quietly, or to get up if she be well enough.

Such a treatment should be given twice a day, before meals or at bedtime—never sooner than two and a half or three hours after a meal. If it be well borne at the

above temperatures, the next day the first cloth may be 120° F., the second 125° F., and the third 130° F., and the next day they may be 125°, 130°, and 135° F., respectively. This is about as hot as is usually required by young persons, but if hotter cloths can be borne they will be still better. Older persons bear cloths wrung from water 160° or 165° F., but the person wringing out cloths at such a temperature will need to dip his own hands into cold water before seizing the cloths in order to be able to handle them; or they may be wrung by wrapping them in a dry towel, or, better still, by running through a clothes-wringer. The dry heat of a hot-water bottle, sand-bag, or any similar contrivance, will *not* take the place of this moist heat, nor will cotton or linen cloths take the place of the flannel or blanket, nor will guess-work take the place of the thermometer; but this fomenting, as it is called, will do more to soothe this, and other pains to be mentioned later, than any drug in the pharmacopœia.

The best medicine is usually *Viburnum*, but it must be used in doses of ten drops of the mother tincture in a tablespoonful of hot water, repeated every two hours until the patient is relieved. If this drug help the condition, it should be used in doses of five drops, taken twice a day in a tablespoonful of hot water, until the next period is passed. If there be dizziness, headache, blurred vision, large quantities of urine, and spasmodic pains, *Gelsemium* will be a good medicine, and should be given in doses of five drops of the mother tincture, repeated every two hours, and given in a tablespoonful of hot water. This drug also may be contin-

ued, after the pains shall have been relieved, in doses of two drops in hot water, morning and evening. Another good medicine is *Cocculus*, indicated by pains like those of colic, made worse by every touch and motion, and also by cold, the menstrual discharge being fitful and the patient very nervous. Dissolve twelve globules in a half glass of water and give a tablespoonful every two hours. The same dose may be continued twice a day until the next period. Many of these cases will prove too difficult for cure by domestic practice.

A flow of blood continuing much too long for the regular period, or occurring in the intervals between the periods, or an excessive loss of blood at the regular time, is a disorder requiring treatment. It may come from structural conditions, or abnormal growths demanding the attention of a surgeon, or from congestions induced by masturbation, or imprudence of various sorts, from bad conditions of the blood itself, or from relaxed vessels. The value of the blood, as the vital fluid, is so great that a condition of this sort should not be allowed to continue without being investigated by a physician; but some domestic measures may be tried at first.

The thing of prime importance is to make the patient lie down. If there be much pain in the back, a foment should be applied to the spine in the manner detailed in an earlier part of this chapter. If the patient be pale and much exhausted by the flow, give *China* in water, a tablespoonful every one or two hours. If she have a good deal of nausea, and the blood be bright red, give *Ipec.* in the same way. If the menses be regularly too

profuse and long-lasting, and the patient be pale, flabby, rather dull, and with cold feet, give *Calc. carb.* in water, two tablespoonfuls twice a day between the periods, and continue it for some months.

It will not do to leave these subjects without a word of caution regarding the very bad habit of masturbation, or self-abuse, to which girls, no less than boys, often become addicted. No girl, no matter what her social position, her home influences, or her apparent character, is safe from temptation to this habit, and no safeguard can be placed about her that will give any security, unless she is fully and intelligently informed as to the significance of the sexual instincts and the proper care and treatment of the sexual organs. For reasons that were given in the preceding chapter, these subjects will not be discussed in the present work, but every mother is cautioned against the common feeling that "my daughter is safe, she is above such weakness." Study the subject well yourselves, and see to it that your daughters are fully informed in all matters that will help them to more perfect health in this most important region of their bodies, and will enable them to assume intelligently the responsibilities of wives and mothers. The poor health of most of our women is apparent to all, and the causes of most of their ills are connected directly or indirectly with their sexual life. Let the subject be considered in time, and much suffering may be avoided. It is the author's intention, in the smaller companion volume on "SEXUAL HEALTH," to give all needed information in everyday language, and with the hope of guarding some in the rising generation

from temptation, suffering, and ill-health which so often follow in the wake of ignorance on sexual subjects.

Another bad habit from which young girls should be guarded is that of wearing corsets, although, as remarked about smoking, in a preceding chapter, it is a habit so wide-spread as to seem to some persons to be almost a necessity. It is nothing but a habit, however, and a very foolish one at that. But don't think that this habit is cured by the simple expedient of laying aside so-called corsets and putting the stays in the dress-waist. That is nothing but a trick, and should deceive no one. The objections to corsets do not seem to be well understood, probably because of the shameful feeling of false delicacy that keeps them from being broached in conversation. Corsets are said to displace the liver, impede the circulation, and deform the figure, and all these things they do, and more like them that are bad ; but these are not the worst counts, because, if they were, an easy-fitting corset would be a harmless thing, while the truth is, that corsets are always objectionable. The trouble with them is that they impede the motions of the lowest part of the trunk in breathing. The circulation in the blood-vessels of the abdomen, and the movement of food through the bowels depend very considerably upon the motions of the walls of the abdomen, and these motions are secured by breathing. Moreover, the womb depends chiefly for its support upon ligaments which are strengthened by these same motions. Now skirts cannot be supported at the waist without making a contraction of the body at that point sufficient to more or less obstruct these motions, and if the lacing be at all

tight, it will, in addition, mechanically press down the womb till its supporting ligaments are stretched and unable to keep that organ in its proper position. In this way diseases are brought about which are among the most troublesome to cure, are very common and very likely to injure the yet unborn child, as well as to give his mother much pain and trouble. All the woman's clothing, except her hat and her shoes, should be supported directly or indirectly from the shoulders, and she should see to it, not only that she can, but that she *habitually does*, use the lowest muscles of the belly freely and extensively every time she breathes.

Active out-of-door exercise and gymnastics are precisely as important for the girl as for the boy. She ought not to make use of them at the time when she is beginning to menstruate, or at any monthly period, as already pointed out, but she ought to have such training, and have it regularly, and combined with sufficient mental training, sufficient relaxation, sufficient food, and particularly sufficient rest in sleep. These things secured, there is no reason in the world why the woman who does not wear corsets should not match the man in health of body and mind, and be his companion in all the stages and changes of life. Health is proportionate activity of all the powers and faculties of body or mind. That all women can attain if they will.

CHAPTER VIII.

DISEASES OF ADOLESCENCE.

There are few, if any, diseases, except those already mentioned, that can be said to distinctively belong to the period of youth or adolescence—by which term is intended the period from puberty to the marriageable age, which may be put at about twenty for the maiden, and twenty-five for the youth, at youngest. The period is far from being free from diseases; in fact, it can be called a time at which an unusual number of troubles may make their attack, and one in which a sort of predisposition to disease in general may be developed by imprudence or over-doing while nature is specially engaged in the establishment of important functions. It is the intention, then, to gather into this chapter such diseases as may be safely treated at home, and that come more often at this than at any other period of life. And to begin with the externals—

Acne is an eruption of little pimples, one or more, coming usually upon the face or forehead, but found also on other parts of the body. It is usually found in connection with the “black heads,” with which most of us are familiar enough. One of these black heads may be the centre of a little pimple, which may swell up in a

day and depart in a night, but which more often remains two, three, and even ten or twelve days. Matter may form in the pimple, which then has all the elements of a small boil, although not large enough to give much pain. There are chronic forms of the disease. The trouble may start in a plugging up of one of the glands of the skin by dirt—a black head—or it may come from troubles elsewhere in the body, as in the stomach or sexual organs, especially if masturbation be practised.

If there be black heads they should be pressed out by setting a watch-key over them, so that the black head can pass into its cavity while its edges are pressed upon the pimple. Then bathe with a lotion made of mother tincture of *Rumex*, one part to three parts of water. Three times a day take a tablespoonful dose of a solution of *Ant. tart.* in water, or mix with it, in the same glass, *Bell.*, if there be much pain and inflammation about the pimples.

Boils may come anywhere, but are usually located where some friction produces a slight irritation. This friction or irritation, however, is in no sense the cause of the boil, which depends upon disordered blood conditions. They may come either from too rich and high living, or from debilitated states of the system. They begin as small, painful pimples, which rapidly grow larger, have red and inflamed skin about them, and get to be sometimes no bigger than a pea, but often as large as an English walnut, and, while always painful, they cause more suffering the nearer they are to superficial bones and the larger they are. After two or more days

matter forms in the swelling, which will burrow to the surface a day or two later, and discharge itself and a sort of core; usually recovery is then rapid. But it is by no means rare that one boil is but the forerunner of others, which quickly follow till the patient's patience is worn out or his bodily condition improved. The pain is usually throbbing, and sometimes the discharge of matter does not occur, in which case the visitor is called a "blind boil."

The best external application to a boil is a boiled fig, which should be cut open and applied while hot and wet from the water in which it was cooked. This should be covered by a bit of dry cloth, and held in position by a few strips of surgeon's adhesive plaster, or by a bandage. The fig-poultice should be renewed about once every four to six hours. As soon as matter can be detected in the boil it is best to open it with a sharp, clean knife, as this not only relieves the pain but also promotes the subsequent healing. Continue the poultice until the core comes away. The best medicine for the throbbing pain is *Bell.*, which may be given in water, a teaspoonful every hour; and for the disposition of boils to return, give a dose of *Sil.*, night and morning, for some days, dissolving the medicine in water, and giving a tablespoonful at a dose.

Felons are decidedly more serious affairs than boils in the estimation of the possessor. Their common seat is near the ends of the fingers, but they may come on the toes or in other places. They usually follow injuries, such as pounding the fingers or getting splinters in them, or from having them in very hot water; but often they

cannot be accounted for by any known cause. The pain usually feels at first as if a splinter were in the skin ; but nothing of the sort can be found, although the patient often uses a needle or knife in his search, to the disadvantage of the coming felon. Soon the pain is very much worse, the part swells, is hot, red, and angry, and keeps the patient in agony. Matter forms, but is very much confined by the tough membranes, and is sometimes only known to be present by the throbbing pain which is its sign. This matter must be released or dispersed, else it may destroy the bone itself. A "**Run-around**" is a felon which attacks only the superficial tissues without going deeply toward the bone.

The best cure is the electric current, and the felon should be taken to a physician who has a battery. The domestic remedies will be *Hepar* and *Bell.* mixed in water, and taken hourly in teaspoonful doses, in the early stage of the trouble, before pain has become very severe. After matter has formed it must be released by cutting the finger open in the direction of its length, and clear down to the bone, after which a poultice should be applied, and *Sil.* given twice a day, as directed for a boil.

Gatherings are collections of matter caused by local inflammations, the evidences of which are pain, heat, redness, and swelling. There are chronic gatherings where some of these symptoms are absent, and in some cases the inflammation is at one place, and the matter burrows and gathers at another place. The gatherings should be opened by a surgeon, and *Sil.* is the best medicine to promote their healing, and should

be given, dissolved in water, twice daily in tablespoonful doses, as directed for the treatment of boils. When movable, rather hard lumps are found under the skin, but without evidence of matter in them, the best medicine will be *Merc. prot.*, given dry on the tongue twice daily, using each time a powder as large as will lie piled on an old-fashioned three-cent piece.

Hives, or Nettlerash, comes out in patches made up of little pimples, white on top, reddish at the base, and with itching and burning. These patches come suddenly, almost anywhere on the body, and may move their position; and when they go, as they usually do in a few hours, they leave as suddenly as they came. Sometimes fever and headache are noticed, which cease as soon as the eruption comes out, and occasionally the trouble is chronic. It depends, for its cause, upon conditions peculiar to the individual, in connection with some internal disorder or error of diet. If the person be predisposed, the eating of oysters, clams, sausage, nuts, caramels, chocolate, butterscotch, vinegar, sauerkraut, acid fruits, cherries, huckleberries, strawberries, eggs, and other things perfectly harmless to most persons, will cause the attack. It comes, also, from disordered sexual organs, from sudden arrest of perspiration, from using some medicines, and from other causes.

The cause should be removed if it can be discovered, and any abused internal organ should be properly treated in future. For the itching, bathe the parts with the essence of lavender, which can be made at the drug-store by dissolving a drachm of the oil of lavender in two fluidounces of alcohol. If the pain

be of a stinging character, give *Apis* four times a day; if it come from eating fats or fruit, use *Puls.* in the same way. If the trouble regularly accompany the menses, use *Cimicif.* These medicines may be taken in water, a tablespoonful dose at rising, at 11 A.M., at 4 P.M., and at retiring. If the case be chronic, a dose of *Sulph.* may be taken twice a day, at rising and retiring, using a tablespoonful at a dose, of a solution of twelve globules of the medicine, in half a glass of water.

Styes are too familiar to require description; they are little, inflammatory swellings of the eyelids. If they come on the upper lid, take *Puls.* four times a day; if on the lower lid, prefer *Staph.* Dissolve the medicine in water, and take a tablespoonful at a dose. These painful little nuisances may be frequently cured in a few moments if, when their approach is first noticed or suspected, the inflamed spot be gently rubbed by the tip of the finger moistened with a mixture consisting of two parts of the mother tincture of *Puls.*, and one part each of the mother tinctures of *Arn.* and *Rhus tox.* This bath may be repeated once in two hours, if necessary; the burning which it will cause will pass off in less than a minute.

Nosebleed in place of menstruation has been already considered; but the trouble comes from many other causes, and is not usually a matter of any importance. In fact, it frequently acts as a relief to vessels distended with the overabundant blood of youth and activity, and protects important organs from rupture or congestion which might occur were it not for

this safety-valve. If the general health be good, the blood bright red, and the flow brief and only occasional, nothing need be thought of a nosebleed, especially if some cause exist to account for it. But if the patient be weakly, the flow long-continued and without apparent cause, something will need to be done, especially if the blood be dark in color, indicating, as it does usually, an obstruction to the return of blood through the veins to lungs and heart.

Full-blooded young persons who are subject to frequent nosebleed should avoid stimulants of all kinds, including coffee, and should eat but moderately. They ought to have abundance of exercise daily, but of a character not too violent. A daily bath should be taken, and if there be any tendency to cold feet, the soles should be dipped in cold water for a few moments before retiring every night. During an attack of bleeding from the nose, the best expedient is to hold the arm high above the head. If the blood come from the right nostril, hold up the *left* arm ; and if from the left nostril, hold up the right arm ; while if the blood should come from both nostrils, both arms must be raised. Do not try to hold up the arms by sheer strength, but grasp a door or any firm object high above the head ; for it may be necessary to keep the arm upraised for full five minutes, although that time will usually be sufficient to stop any nosebleed. If more treatment be required, however, let it be ice to the spine. Place the ice next the skin or wrap it in a towel, or enclose it in a rubber bag, and lie down upon it, having the ice in contact up and down the spine in the neck and between the shoulders.

This application may be continued as long as needed, and has been maintained without interruption for thirty-six hours with benefit. After the bleeding has ceased and the ice has been removed, the patient should remain lying for at least half an hour. While lying, blood may run down the throat and into the stomach without being noticed until it is vomited. Snow will not be found as effectual an application as ice. Other simple expedients for the arrest of nosebleed are, the inserting of a plug of linen or cotton rolled to fit the nostril pretty closely and make pressure on its sides; or a similar plug, inserted after wetting it in strong alum-water. Soaking hands or feet, or both, in hot water, is often effectual, or even the mere pinching together of the nostrils. If the trouble were caused by a blow or fall, a tablespoonful dose of *Arnica* (five drops of the tincture dissolved in water) may be given; if by congestion to the head, give *Bell*. If the blood be thin and the bleeding long continued, *Phos.* is the medicine; while for a flow of dark blood, *Hamamelis* is better. Give these medicines as directed for *Arnica*, using twelve globules to half a glass of water. For weakness, dizziness, and ringing in the ears, caused by long-continued or frequent nosebleed, give *China*, in water, a tablespoonful four times daily.

Quinsy is characterized by sore throat, difficulty in swallowing, fever, headache, loss of appetite, usually constipation, and especially by enlargement of the tonsils, which is the distinctive feature of the disease. The pain in the throat is throbbing, and as the tonsils get larger it becomes difficult to open the mouth, the speech is thick, the breathing even is impeded, and the parts

near the tonsils also swell. A constitutional tendency to enlarged glands seems to have much to do with causing the disease, and a person who has once had it is especially liable to repeated attacks, which are brought on by getting the feet wet, exposure to cold and damp, and sudden checking of perspiration.

The disease should be brought under treatment early, because, if it be neglected until the tonsils are considerably inflamed and swollen, there is then very little prospect of arresting its course till matter has formed and discharged itself. If the patient have had previous attacks, a slight sore throat should be considered a sufficient occasion for the application of a cold compress on going to bed at night. This may be made by taking a piece of flannel long enough to go around the neck when doubled. This should be wrung out of cold water, applied closely to the neck, and entirely covered by another band of flannel of the same thickness. The compress is to be worn all night, and in the morning, on removing it, the neck is to be thoroughly bathed in cold water. In addition, a tablespoonful dose of a solution of *Bell.* in water should be taken once every three hours, till all symptoms disappear. Should there be signs of enlargement of the tonsils, the neck should be at once painted with a mixture of tincture of Iodine and Alcohol in equal parts. Paint from ear to ear and from chin to collar-bone, and repeat once a day for three days if necessary. The best medicine now will be *Merc. prot.* mixed with *Bell.* in the same glass of water, and a teaspoonful dose taken once every two hours. If the swelling seem to increase, and there be no prospect of

preventing matter from forming and escaping, it will then be better to take the powder of *Hepar sulph.* every two hours, putting each dose dry upon the tongue, the quantity required being about as much as will lie heaped on an old-fashioned three-cent piece. After the matter has escaped, the patient will speedily feel as well as ever, but he should continue treatment by taking a tablespoonful dose of the globules of *Hepar sulph.* dissolved in water, every night at retiring, for two or three weeks, to correct, if possible, the tendency to repeated attacks of the disease. During the attack the food will have to be liquid, or nearly so, and much relief is often experienced from keeping lumps of ice in the mouth.

Bad breath has often a most unmistakable cause, as when it results from that vilest and most inexcusable tobacco habit, or from taking with the food such medicinal substances as onions and garlic. The cure for the condition when arising in such a manner is self-evident. But bad breath may depend upon causes not so apparent; as bad teeth, decaying food between the teeth, indigestion, or some more serious disease of the throat, lungs, blood, or other part of the body, or upon the use of strong medicines harmful to the mouth or teeth, such as large doses of crude mercurial preparations (very different things from the *Mercurius* so often prescribed in this volume). Its cure will often depend upon the cure of other diseases; often upon attention to the teeth and mouth, having the former put in repair, if necessary, and both kept clean by frequent washing, brushing, and gargling; often upon keeping the skin active and healthy by

daily bathing in moderately cold water; and often a medicine will be needed, as *Nux vom.*, in cases where the breath is bad every morning, especially if there be headache and constipation; or, *Carb. veg.*, if crude mercury have been used in large doses and there be much wind in the bowels; or *Puls.* where there is indigestion, and the trouble is worse morning and evening, with chilliness. If none of these medicines (given four times a day in water, a tablespoonful at a dose) have the desired effect, use *Sulph.* in the same way, and continue it for a week.

Most of the troubles which affect the mouth in youth, or at any later time of life, indicate disorder in some other part of the body. The coatings which are so frequently found upon the tongue give very positive evidences of the conditions present in the stomach and intestines, and bad tastes in the mouth, canker sores, loosened teeth, increased or diminished saliva, and diseased gums, are disorders best treated by finding out upon what other troubles elsewhere they depend, and medicating these. Still, some general indications for the use of medicines for troubles in the mouth can be given, and may be of service to the domestic prescriber.

For bad taste in the mouth: Bitter, *Nux vom.*; sour, *Calc carb.*; sweet, *Puls.*; foul, *Sulph.*; salty, *Carb. veg.* Where all food has a bitter taste, use *China*; sour, *Nux vom.*; salty, *Ars.* Where the saliva is very profuse, use *Merc.*, which is also wanted when the gums are swollen and painful and recede from the teeth. For canker sores, use *Rhus tox.*, and when the teeth feel too long and loose, use *Bry.* Each medicine should be

given in water, the dose being a tablespoonful repeated four times a day.

Hiccough is a nervous affection of the muscle which separates the lungs from the stomach, and which has much to do with drawing in the breath. This muscle, contracting with a jerk at a time when the air-passages in the throat are nearly closed, occasions the resulting sound, which is due to obstruction of the current of air. The trouble is more common with young persons, because the nervous system is more sensitive in youth, and anything that can irritate the nerve of this dividing muscle may cause hiccough. It is a symptom of some serious diseases, but more often comes from irritating matters, like pepper or wind in the stomach. The spasmodic jerks return as regularly as if the muscle had acquired a sort of habit; and a cure frequently results from doing something that will break up this habit. This may be accomplished by drinking very slowly, but steadily, and without interruption, as much water as can be swallowed. This interrupts the regular breathing and creates such a demand for air that an excessive breath must be taken, and in consequence a marked demand made upon the affected muscle. A similar result may be brought about in much the same way by counting as many as possible without breathing, or by simply filling the lungs to their utmost capacity and seeing how long the air can be retained. If this be not sufficient, give a dose of *Nux vom.* dissolved in sweetened water, of which two teaspoonfuls may be taken every two hours.

Heartburn is a name given to symptoms that have

nothing whatever to do with the heart, but that usually accompany dyspepsia or indigestion. Usually there is gulping up of a sour liquid into the mouth, or wind is raised, with a sense of discomfort and burning near and below the heart. If such symptoms come on soon after eating, and especially after fat food or sweets, give *Puls.* every two hours; if with constipation and headache, prefer *Nux vom.*, and if there be much wind in the bowels, select *Carbo. veg.* If these medicines fail, *Capsicum* will often relieve. The medicine should be dissolved in water, of which two teaspoonfuls should be given every two hours.

Vomiting results from a vast number of causes, only a portion of which belong to the stomach. In fact the best emetic known to physicians is not usually introduced into the stomach at all, and the act of vomiting is accomplished by muscles near, but not really a part of that member. Diseases of the brain, nervous system, liver, kidneys, and other organs are frequent producers of this action; but it is still often nature's way of expressing rebellion, and her refusal to afflict the system generally with the vile concoctions which have been forced upon the stomach. It is usually the best plan, when vomiting has evidently been induced by the presence of unwholesome articles in the stomach, to foster and encourage the act as much as possible. Many poisons produce vomiting almost as soon as taken into the stomach, and all of us are liable to partake of food which has become poisonous, although supposed to be wholesome. When a person, previously in good health, is suddenly attacked with vomiting, the process may be

stimulated by tickling the inside of the throat. This may be done by the patient himself by pushing the finger as deeply into the throat as possible, and moving it about there gently; or a stiff feather may be inserted into the throat in the same manner. If these means be not sufficient, let the patient drink three or four glasses of warm water containing soap or two teaspoonfuls or more of ground mustard. See the chapter on poisoning.

The best medicine to cure frequent vomiting and sick feeling at the stomach is *Ipec.*, which may be given in water, a teaspoonful every two hours, or oftener. If the tongue be coated white, and the vomiting be with great effort, and result from overloading the stomach, give *Ant. tart.*; and if there be great exhaustion after the attack, and the vomiting be persistent and easy, give *Verat. alb.* Vomiting with diarrhœa, exhaustion, and burning in the stomach requires *Chin. ars.*, which should be given in powder, dry on the tongue, a dose every two hours consisting of as much as will lie heaped on an old-fashioned three-cent piece. The other medicines should be given in water, a teaspoonful every one or two hours.

Nightmare very often depends upon the state of the stomach. The great blood-vessel which leaves the heart runs down in front of the backbone, and just behind the stomach; but before it gets to that organ it has given off branches which carry blood to the brain. Now, if the stomach be full and heavy, and the patient lie down on his back, the load of food will press upon the blood stream and obstruct its flow downward, thus

sending more blood up to the head and brain than would otherwise go in that direction. For sound sleep the head should be as nearly emptied of blood-as it can be and live, and when it is but partly emptied dreams or wakefulness will result. A nightmare is nothing but a particularly bad dream, and the prevention of such visitations may be accomplished by relieving the blood-vessels of undue pressure. Do this by sleeping on the stomach or side, or by going to bed with an empty stomach—a plan which is not without disadvantages. A good medicine to use is *Bell.*, where the face is flushed and the pulse strong and visible in the neck. If the attack be associated with snoring, stupor, and heavy breathing, use *Opium*. Let the patient bathe daily, and have abundance of fresh air day and night. The medicine should be dissolved in water, of which a teaspoonful should be given every half hour as long as required.

Fainting depends upon quite opposite conditions from those inducing dreams and nightmare, being the result usually of a lack of sufficient blood in the head to supply the demands of the brain. This may be caused by weakness or actual disease of the heart; by nervous weakness, preventing the heart from acting with vigor; by deficient blood-supply, due to disease of the digestive or blood-making organs; or by loss of blood by accident, or excessive monthly flow in women, or in other ways. In weakly persons emotions, the sight of blood, or sudden bad news will often cause fainting.

The patient should be laid upon a bed or the floor, with the head a little lower than the hips, which may

be raised by a small pillow. Care should be taken that the clothing shall not obstruct the breathing, either at the neck, chest, or waist, and corsets and waistbands should be freely loosened. Cold water should be sprinkled upon the face, or a towel wet in cold water may be slapped smartly against the face and chest. *Ammonia water* or *Tincture of Camphor* should be held to the nose, and if medicine can be swallowed, lay upon the tongue three or four globules each of *Camph.* and *Caps.*, dry, and repeat the dose in fifteen minutes if necessary. After the attack is past, if there be much exhaustion, especially if loss of blood preceded the attack, give *China*, in water, a tablespoonful four times daily, for a week or more.

Cramps in the feet, calves, or other parts of the body are occasioned by the strong contraction of the muscles through involuntary nervous influences. This contraction is usually painful and makes the affected part useless for the time being. The causes of the trouble are often difficult to ascertain, but it comes in some persons from cold generally applied, as in swimming, or from exhausting diseases such as cholera, or from poisoning by lead. The affected muscle should be put upon the stretch, by pressing upon the part which it moves. For example, if the cramp be in the bottom of the foot, the toes should be forcibly lifted and pressed against some hard article to increase the strain upon the muscle. If the cramp be in the calf of the leg, the whole limb should be held straight, and the toes and end of the foot with them, should be drawn or pressed up toward the knee as far and as forcibly as possible.

Cold, particularly cold iron, applied to the skin over the location of the cramp, will assist in its relief, and the part should be rubbed briskly, and the muscles pinched and rolled in the hands. The best medicine for a tendency to cramp is *Verat. alb.*, given in water, a table-spoonful four times daily for a week.

PART III.

FROM MATRIMONY TO THE CLIMAX.

CHAPTER IX.

THE MAN.

An individual of the human race who is fully matured, a male, and possessed of all his members, powers, and faculties, is undoubtedly entitled to be called a man; but just when he arrives at the state of manhood, and just how far he may fall short of full endowment without losing his right to that designation, are points not yet established. It is usual to call him a man who has attained his full stature and is provided by nature with a beard (whether he suffer it to grow or not); but many boys cease growing in height at their fifteenth or sixteenth year, while few men attain their maximum of weight under forty. We call him a man who has lost a leg or an arm, if he be otherwise entitled to the name, nor do we refuse it ordinarily to a lunatic or to a sot, yet we begrudge it to the coward and apply a special designation to one who is incapable of transmitting life

to offspring. In some lands mere children marry and beget sons and daughters without being thought men, while in other countries true and noble men pass their lives in chaste celibacy and attain to the highest virtue and usefulness. The law calls him a man who has attained a certain age, but the physician makes very little account of birthdays and the calendar in marking the periods of life. In many respects the sophomore of to-day is older than Methuselah was at his death, and youth is often more manly than maturity.

It is evident, then, that in considering man in the part of this book beginning with matrimony, it is not intended to imply either that manhood is reached at the dawn of marriageability, whenever that may be, or that full manhood involves matrimony. On the contrary, the writer is fully convinced that the man who, for some definite purpose, resolves to live and die single, that he may the better serve his fellows and develop his own character, and who lives up to that resolution by the highest standards of purity and chastity of thought, word, and deed, attains the loftiest heights of manhood—physical, mental, and moral. Such seems at least to be the teaching of both the Scriptures and History; but it is no less certainly taught by Science and Revelation that marriage is honorable in all, is the condition designed for the vast majority of the race, and the one in which most men will find their highest possibilities and strongest incentives. So, then, we will consider him a man who is sufficiently mature to marry, simply because in the natural course of events he will do worse not to marry; and if he determine to live on the

exalted plane of chaste celibacy—chaste in thought as well as in deed—he will have very little use for a work on “domestic” medicine for more than one reason.

At what age a man becomes marriageable has never been settled, and never will be, simply because, as just explained, the body does not develop by the calendar, and hence the marriageable age differs with different men. The world has long since abandoned the idea that marriage should wait on maturity; and while the time was when marriage at forty was thought quite the proper thing, nowadays he is looked upon as a confirmed bachelor who has reached thirty-five without choosing a partner for life. But men do not fully mature under thirty-five years, as a rule, and it is a question whether the race would not improve in physique were the weddings all postponed till that age had been attained. It ought never to be forgotten that one of the most important objects of marriage as an institution is the preservation of the species, and that, therefore, most questions regarding it should turn upon the welfare of offspring. No man who is worthy of the name would deliberately put upon his children either an incurable disease or that weakness of constitution which will inevitably invite disease to make its attack; yet thousands upon thousands of children do come into this world both with incurable diseases and weak constitutions; and while very many so come because their fathers are not men worthy of the name, no inconsiderable number so come because their fathers did not know their own physical or mental deficiencies, or that they could and would be handed down to another generation. It is sad to believe, yet

probably true, that, however welcome after they are once in the world, children are not born, as a rule, because their fathers distinctly desired that they should be ; but whether accidental or intentional, a birth cannot take place without stamping upon a new creature more or less of the physical, mental, and moral life of his father, and hence it follows that no man has a moral right to risk that accident (whatever his intentions may be) by marrying, unless he is ready to take the responsibility of reproducing in another generation what he himself is at the time he marries. Immaturity cannot expect to breed maturity ; weakness cannot expect to breed strength ; depravity cannot hope to breed virtue ; sickness can never be the source of health.

The men of this day and generation need to have it impressed upon them that good fathers are as essential as good mothers in the rearing of good citizens ; that the duties of a father by no means either begin or end with the selection of a mother for his future children ; and that a man's character, as developed in the daily routine of life, is a factor of more importance in the future history of his children than is the size of his bank account or the extent of his fame. Children have a right to look to their parents for health—health of mind and body, health in the blood as well as health from proper care and training—and if a man be not provided with health and do not know how to preserve it, he ought to secure that blessing and knowledge before taking a wife. The battle of life will put the best equipment to the test, and who can wonder at the moral wrecks and the wee mounds in the cemeteries when he

considers the careless way in which undeveloped, unhealthy, and immoral men assume the responsibilities of fatherhood.

The diseases peculiar to men are alarmingly prevalent. They are, above all others, the troubles upon which the quacks thrive, which fact simply indicates that they are diseases which the patients will conceal at all hazards from the family, even avoiding the risk involved, as they think, in consulting the family physician. This fact should put parents more on their guard and make them more earnest in instructing the young in time about all matters relating to this important subject. These diseases are all made worse by the peculiarly masculine habits of using tobacco and alcohol; but their discussion, so far as that is wise in a work designed for the family, is ruled out of the present volume by considerations given at length in Chapter VI. It is to be hoped, however, that the plan of relegating to a separate volume the chapters on "SEXUAL HEALTH," will result, not in a more limited, but in a more general and earnest study of the subjects which will be found there discussed at length and with frankness.

It is, perhaps, most frequently in the period of young manhood that the temptation to use **alcoholic liquors** has greatest power, and therefore this will be the most appropriate place for a few words regarding these beverages; and by the term "alcoholic liquors" is here meant everything that is drunk as a beverage and that contains alcohol, including, therefore, ale, wine, beer, hard cider, "bitters," and kourmyss. The use of these things follows the use of tobacco, almost as a

natural sequence, and although many have their eyes opened in time to the true character of these beverages, who have already blinded themselves regarding tobacco by habituating themselves to its use, it is still tolerably certain that the habitual and early use of the one creates a demand for the other poison, as has been already pointed out in speaking of tobacco. Here, then, is another and very strong reason why all self-respecting fathers should refrain from giving their sons the idea that the use of tobacco is manly by using it themselves.

In view of the enormous amount of literature now published by medical, as well as other writers, on these subjects, and the constant agitation which they are receiving, it would seem almost as unnecessary to say anything, as it is impossible to say anything new regarding them, were it not for the fact that medical use of alcoholic liquids is treated generally as something apart and widely different from social and general use of them. This makes it necessary to give these subjects consideration from a medical standpoint, for both are assuredly medicinal agents which it would be difficult to replace, although tobacco is not so frequently required or used as is alcohol on the physician's prescription. Of the former, all that need be said in this work is included in Chapter VI.; but of alcohol a few words are needed, especially by those who fancy that it is one thing as a beverage and quite another thing as a medicine. Persons who would scorn a social glass of wine, as if it were poison, will go to their private medicine-chest for a "dose" of brandy, if they do but get their feet wet or have a touch of diarrhœa. Those who regard wine as

the great destroyer of homes, minds, and morals are yet prepared to accept it as the chief destroyer of disease, of whatever sort or however induced. And those, again, who think strong drink an evil and only to be prescribed by a physician in case of dire necessity, will yet advise a glass of light wine for a colic, or of "lager" for sleeplessness. Then, too, the name under which alcoholic beverages are sold exerts a marvellous influence with some minds. Men who hesitate to use whiskey, even on the definite prescription of a careful physician, endorse gratuitously some tonic or bitters which they use generously themselves, without troubling anyone to learn whether the proportion of alcohol is greater in the whiskey or the bitters, or whether any other substances contribute to produce the effects of the latter upon the system.

Alcohol is always and everywhere a poison. The same is true of every other valuable medicine, and the fact does not in the least detract from the usefulness of alcohol in the treatment of certain diseased conditions. The value of a medicine depends upon its power of arousing the system to repel its attack. But any substance which, when taken into the system, makes an *attack* upon it, is a poison, and if its attack be pushed beyond the resisting power of the system, permanent injury must result. Nor is it necessary to push the attack very far beyond the resisting power of Nature in order to produce injury. Small doses of poison, frequently administered, seem to wear out the reaction they at first excited, leaving the system more susceptible to the harmful effects of the poison, and also robbing it of

the benefit to be derived from the medicine when needed and properly used.

Every drop of alcohol that enters the body of a healthy man is recognized as an enemy whose attack nature must exert herself to repel. The mucous membranes of mouth, gullet, and stomach first feel the attack, and blood locates itself in the small vessels of these membranes, especially those of the stomach, to repair the injury inflicted ; and this location of blood is called inflammation. Long-continued inflammation results in destruction of the part affected, and in this way hundreds of thousands of stomachs have been destroyed ; although in the earlier stages of the process the increased amount of blood in the vessels of the organ, bringing increased quantities of gastric juice, has *seemed* to result in improvement of appetite and digestion. The alcohol passes from the stomach directly into the circulation, and thus the heart is soon subjected to its attack, and nature's effort to protect this organ, and with it the whole body, shows itself in a more rapid pulse, which sends the alcohol more quickly to the lungs, where it can be thrown out of the system. But this increased heart-activity can only result in sending blood more rapidly to every organ of the body, thus increasing its nourishment and stimulating it, as it is called. Stimulation is only hurrying, and must be followed by resting to equalize matters, for it is as impossible for the heart and other organs to work without rest as it is for the body, as a whole, to do so. When the stimulation is removed, then comes the time of rest for the heart, during which a feeling of depression is noticed,

leading to the desire for new stimulation, which again results in extra and unnatural activity, depending upon nature's efforts to throw off the poison, alcohol. In this way life is crowded into briefer space, and the body earlier laid in the grave, simply by wearing it out sooner through demanding extra work, only to rid it of a voluntarily taken and useless poison.

But the irritation of the heart is produced by alcohol which is in the blood, and which is sent with the blood all over the body, producing mischief, injury, and eventual destruction in all the organs, especially in the nervous system where the delicate structures are peculiarly sensitive to such poisons. The appearance given to eyes and nose by long-continued use of liquors is but an extension to those organs of similar conditions existing long before in the more delicate internal structures all through the body. It may be that some diseased conditions of minor importance can be cured by the increased supply of blood and warmth sent to the affected organs during nature's efforts to rid herself of an irritating poison; but it is certain that the treatment always involves an injurious element, that it often does more harm than good to the diseased organ, and that it weakens the resisting power of the body in the depressed period that must follow the period of stimulation. Hence alcohol is a dangerous remedy in the hands of any but a skilful physician, and is always harmful except when used wisely as a medicine. In fact no more serious charge can be brought against the medical profession than that its members have too often advised the use of alcoholic medicines in a general way, without specifying

the exact drug indicated, its dose, frequency of repetition, and the time during which the medicine is to be continued. He is never a trustworthy prescriber who holds that patients can safely be left to care for the details of administering poisons to themselves, after the physician has selected the proper poison for their use.

And it should be emphatically repeated that these remarks apply to all kinds of alcoholic beverages, and to all manner of ways of using them. Ale, wine, and beer all contain alcohol, and are, therefore, injurious poisons, even if it be possible to obtain them without adulteration, which, in the case of beer, at least, is very doubtful. Nor can the poisonous effects of alcohol be avoided by strict adherence to the rule of moderation. While the moderate, regular user of wines avoids the wrecking of his manhood and the destruction of his mind and morals, brought upon himself by the drunkard, he is, nevertheless, precisely the man who is most certain to have to reckon with his host some day, in the form of physical ills and bodily weakness. It may safely be asserted that no man ever deliberately plans to become a drunkard. His idea is either to use wine moderately, thus requiring of his body the constant, wearing battle against a poison, or else it is to take an occasional glass to warm his blood and loosen his tongue, both of which effects are simply very mild forms of intoxication, which word literally means poisoning. The perfect man, the healthy man, the sound man must keep himself entirely free from alcohol, as well as from tobacco and all other poisons, if he would attain and maintain the physical perfection of the Creator's design.

CHAPTER X.

THE WOMAN.

The age at which a girl becomes a woman is no more fixed than is that at which youth becomes manhood. Full development of woman's body is undoubtedly accomplished in fewer years than are required to complete the corresponding work for man, and when fully developed the girl is called woman, to indicate that she is now capable of promotion to the office and dignity of motherhood. That girls of sixteen and eighteen can and have become mothers in this climate is no evidence that it is right or wise for them to do so, and one needs but to get a high and true idea of motherhood to see how impossible it is that the office should be properly filled by immaturity. Still there are facts which lead to the assignment of an earlier age than that selected for men as the beginning of the marriageable period for women. In the first place, a woman's body is matured some years earlier than is that of her brother ; then, as a rule, her education and views of life are such that she needs to be actually in possession of a babe of her own before she will seriously and directly prepare for the work of rearing it ; and again, the climax of her life, which puts an end to her ability to bring children into

the world, comes at an age so much younger than the corresponding change reaches her husband that nature would seem to teach that from ten to fifteen years is not too much of an interval in the ages of a married couple if the man be the elder. Then, too, the woman who becomes a mother for the first time after she has passed her thirtieth year is apt, unless wisely managed during her pregnancy, to have a more serious time in her labor, owing to the fixed condition of certain bones in her body, than she would have experienced had the birth occurred before that epoch. If, then, the woman is to marry, the best age for the wedding is between twenty-one and twenty-eight, and for reasons which will appear in "SEXUAL HEALTH" it is a matter of some importance that her husband be from five to fifteen years her senior. Many exceptions must, of course, exist in any such rules. Many a woman at eighteen is better prepared for marriage than is her sister at thirty, and in many happy unions the husband is the junior partner; but still the rule holds good in most cases.

But while it is a matter of some importance when she marries, if at all, it is in no sense important that a woman marry at all. The world, as a whole, is pretty evenly divided between men and women. It follows, then, that if some men are to be advised not to marry, the same advice will apply to some women, and it applies with added force, for there is no such physiological process impelling to the conjugal act in the case of women as there is in that of men. For a capable, energetic, ambitious, and determined woman, life has a thousand open avenues more attractive than matrimony;

and although most women experience the longing for offspring, which is with them the foundation of matrimonial desires, such longings are by no means irresistible, or even universally present, and, unfortunately, if present, they are not usually strong enough to lead the woman to properly prepare herself for motherhood. The woman who is not ready to assume the office of mother, or who is not prepared for her work in that office, should not think of marriage.

But, unfortunately, women have been taught to think of marriage as the end and goal of earthly existence, as the only avenue to a home and a settlement in life. Rarely is it looked upon as the means to an end—motherhood. Probably quite as often in these degenerate days it is looked upon as an end which is less desirable because it involves the risk of motherhood. Not all women are capable of becoming mothers in the truest sense. It is the most exalted office and makes extraordinary demands of the persons who aspire to it. And not all women desire the office. It may safely be said that the unwilling and the incapable stand a better chance of happiness, usefulness, and health of body and mind outside than inside the bonds of matrimony.

It cannot be said too often, or insisted upon too strongly, that ignorance of the significance of marriage on the part of young people, and especially of young women, is the foundation of a vast amount of suffering and misery. The physical troubles of thousands of women begin with their wedding, and simply because they did not know in advance what the marriage signified. Our girls read too many romantic novels, and too much silly

stuff which they think to be poetry. The idea is too generally accepted that marriage is founded upon love. Even the meaning of that good old word has been twisted out of it, and we hear people talking about different kinds of love, and saying that the love one should feel for her mother is a totally different thing from the feeling she should have for her husband. That simply is not so. For Christian people there is just one law of love, and it is this: "As I have loved you, so love ye one another." No man ever yet lived up to that standard of love, even toward his wife, yet it is made his duty toward all his fellows. Marriage is founded upon a totally different feeling, namely, sexual instincts and desires, although the church is very wise in requiring those who propose to pass their lives together in the married state to profess and promise love to each other. Teach a young woman this fact, namely, that the man who seeks her hand and heart would never do so were the instinct absent which impels him toward fatherhood, no matter how many and how different causes combine with this one to make her attractive to him, and you have given her more profit than she could find in a hundred romantic novels. Knowledge on this and kindred subjects does not come to us instinctively, and it is wicked to leave a young woman to learn by her own bitter experience what could be easily and safely told her out of the experience of others. We pursue this course upon almost no subject except the one which can fairly claim most importance with regard to the present and future happiness of the individual, and the welfare of society and the race in general. Yet out of deference to popu-

lar prejudices and social customs the author is obliged, at the risk of lessening the opportunities of usefulness of the present volume, to place between separate covers, what he has to say regarding "SEXUAL HEALTH." To that volume must be referred all who wish fuller information as to the organs and functions upon which nature has laid so much stress, assigning to them, not merely the preservation of the species, but such relations to life that health and happiness depend very considerably upon their proper treatment.

As is well known, the number of troubles that afflict the average married woman, and are peculiar to her sex and condition in life, is legion, and most of them are of such a nature that any allusion to their treatment in a work of this character would be out of place. They depend upon conditions and involve considerations so complicated that they can only be treated by the accomplished physician. Many of them depend, primarily, upon the improper dress and inactive habits of our women during their girlhood, as well as in later life, and upon these subjects much has already been said in Chapter VII., where, also, menstrual difficulties were considered. Many other troubles grow out of bad management or imprudence during labor, which subject belongs to the following chapters, so far as it comes within the scope of the present work. Two or three conditions peculiar to women, however, properly demand attention in this place.

Leucorrhœa, or Whites, is a trouble with which many women are afflicted, and consists of a discharge from the vagina, in greater or less quantity, of a

fluid, or semi-fluid, matter of a whitish, yellowish, or greenish color, and of varying odor and consistency. It is usually a condition precisely similar to that found in the nose when the person has a cold in the head. The mucous membrane lining the vagina, or the womb, or both, becomes congested, and, as a result, the parts relieve themselves by discharging this fluid upon the membrane, whence it flows off. The condition is disagreeable; but often, when constipation or some other obstruction to the removal of waste matters is present, the leucorrhœa acts as a sort of safety-valve to relieve the circulation of hurtful substances.

But often leucorrhœa is a more serious matter, and depends upon other causes than cold. Among these may be mentioned excessive sexual indulgence, masturbation, cold injections, foreign bodies like pessaries in the vagina, and it is also sometimes a consequence of pregnancy and labor. High living and sedentary habits help to cause it; and it is sometimes induced, especially in little girls, by worms which crawl from the back passage into the vagina. The discharge is sometimes very irritating, and causes smarting or itching, and the trouble is often accompanied with dragging pains, backache, headache, and various bad feelings.

In the treatment of this difficulty nothing will be of so much service as injections of water of different temperatures; and as was said with regard to fomentations, so here good results can only be assured from using water of known and definite heat. At first the temperature should be 110° F., and the injection should always be made by a "fountain" syringe. The largest size of

syringe should be preferred, whose reservoir will be found to hold about a quart, and will need to be refilled from three to four times at first. The patient should sit upon the edge of a bed or chair, which may be protected by a rubber sheet or waterproof so gathered up as to conduct whatever water may escape into the vessel placed on the floor to receive it. When all is arranged, fill the reservoir of the syringe with water at 110° F.; introduce the delivery-tube, after lubricating it with vaseline or sweet-oil, into the vagina as far as it can be passed easily, then allow the water to flow into the vagina; but at the same time place the hand over its outer lips in such a manner as will obstruct the exit of the water, and compel it to distend the vagina to its fullest capacity, so that the lining membrane may be smoothed out, and the hot water gain access to every part of the organ. Then allow the water slowly to trickle out into the vessel provided, and, if possible, let the flow be uninterrupted till a gallon of water has been passed through the syringe. The reservoir of the syringe should be hung as high as the pipe will allow, in order to get sufficient force to fully distend the vagina.

Such an injection should be taken twice daily, provided it can be followed each time by an hour's rest on the back. If this cannot be, then let it be taken but once daily, at retiring. After a week the temperature of the water should be reduced 5° F., to 105° F., and each succeeding week a further reduction of 5° F. in the temperature should be made, until water at 80° F. is employed, at which point its use may be continued indefinitely. A woman who once learns the luxury of these injections,

and the sense of cleanliness in which they result, will be very loath to abandon them, and they may well be continued permanently after the proper cold point for the water has been reached, using a less quantity of water once daily. Such injections should, of course, be omitted during the periods; and during a treatment for leucorrhœa it will be necessary to omit sexual indulgence.

Medicines may help on the cure of leucorrhœa, and among them the best are *Calc. carb.*, when the discharge is profuse and creamy, with swelling of the parts, in persons who have the periods too soon and very profuse, with cold feet and sensitiveness to cold, and a fat and flabby condition of body; *Pulsatilla* when the discharge is greenish, thick, causes burning, and is associated with disturbance of digestion, especially nausea, and in persons who have frequently changing symptoms, and are usually better when in the open air. Give the medicine in water; a tablespoonful four times a day.

Itching of the privates is a very troublesome difficulty, from which women often suffer. It is one of the accompaniments of pregnancy with some women; occasionally the exciting cause is lice, and it is also induced by stiff hairs growing inward against the membrane, but more frequently it results from leucorrhœa. When pregnancy is the cause, the physician must search for a remedy suitable to the nervous condition present, but in all cases the greatest attention must be paid to cleanliness. If lice be the cause, the parts must be rubbed once a day with mercurial ointment mixed with an equal amount of vaseline, and this must be well washed off with soap and water after twelve hours;

usually the tar soaps will be best for this purpose. But if the trouble be caused by leucorrhœa, aside from the thorough washing and the injections already advised, it may be necessary to bathe the parts with water containing the *Nitrate of Silver* in the proportion of ten grains to the ounce of water; or a similar solution of *Borax* may be tried, but should be stronger. The *Borax* may even be applied in powder. *Balsam of Peru* applied with a brush is often efficient, but must be used cautiously at first, as it is apt to sting the delicate membranes rather unpleasantly. A dose of *Sulphur*, once or twice daily, taken in water or dry on the tongue, will be the best medicine for internal use. Use four or five globules, dry on the tongue, or put double that quantity into half a glass of water, and take a tablespoonful of the water as a dose.

CHAPTER XI.

PREGNANCY.

The work of creation was progressive from the lowest to the highest organizations. Whatever view of the method of creation we accept, all alike teach this truth, and the Bible names woman as the last, and, therefore, the crowning triumph of creative genius, so far as the world contains the results of that work. The qualities that are peculiarly feminine are the ones of most permanent value and of most efficacy in the long run. She is not calculated to push on the world's work or conquer its material resources, but the world and matter are but temporal affairs and important only in their relations to character building. The things of permanent value are those of another sphere, and the qualities that will there be in the ascendant are those which here we see best exemplified in woman. To be sure here we see woman taking the place of the "weaker vessel," living for man as his helper, and very much as he directs; yet even here, in the end, the woman proves her superiority; for the men of the next generation are largely what the women of to-day determine. The mothers make the men, and therefore in motherhood woman finds her crowning earthly glory, and the sphere in which she can best display her peculiar virtues.

For in all points, physical and mental, where a difference exists between male and female, the feminine characteristic seems designed, directly or indirectly, to help on the work of bearing and rearing young. Such points cannot be elaborated here, but they are introduced to add force to the advice that woman consider her life as a preparation for, and accomplishment of, the work of motherhood. If she grasp the full significance of that work she will find the days and years all too short for the fulfilment of the sacred mission.

In physiological affairs, to which, of course, the present work must be restricted, the best preparation for the beginning of motherhood will be a careful study, in advance, of nature's method of fitting up and locating in the world the fleshly house of a new mind.

The human egg is a very small affair. One hundred of them laid side by side would hardly measure one inch, and they are cast off from the body without attracting any attention whatever. They are produced in two small egg-shaped organs called the ovaries, which are located on either side of the womb in the lowest part of the abdomen. The eggs originate somewhere in the substance of these organs, and do not seem ever to come into direct contact with any blood-vessels, so that it is not true, at the start or later, that, in a literal sense, the blood of the mother flows in the veins of her offspring. Not one drop of blood, as such, ever passes from either father or mother to the veins of their children, although it is, of course, true that the whole substance and nourishment of the infant pass through his mother's veins, until he is capable of digesting food from other sources.

In case the egg is fecundated, as it is called, that is, made capable of developing into a new human being, very important changes occur in its course, surroundings, and history. Just where fecundation occurs is not known, nor is its method understood. Some authors believe that the process takes place before the egg has left the ovary, but it is only certain that it is accomplished before it reaches the womb.

The earliest signs by which it may be known that the egg has been fecundated are none of them very certain, and the most expert practitioners are often at a loss to say, in the first few months, whether conception have occurred or no. The cessation of the monthly sickness is almost sure to occur, and usually, in a woman who has never had a child, the ring about the nipple will turn darker in color, and a dark line up and down the middle of the abdomen will show itself. In a few weeks the "morning sickness," soon to be mentioned, shows itself in so large a proportion of cases that it may be counted among the signs of conception. But, as has been said, none of these signs is infallible.

When the egg is fully matured it comes to the surface of the ovary, and is cast off from that organ. It is then caught up in a tube that leads it to the womb. It requires several days for this passage from ovary to womb, and if in the meanwhile the egg be fecundated, that organ, instead of giving off blood to produce the monthly sickness, retains it to form a lining in the womb, which loosely covers the end of the tube through which the egg is passing. The latter, leaving the tube, pushes this lining out, and is supported by it in the highest

part of the womb till the after-birth can be formed. This after-birth is the organ through which all nourishment is conveyed to the growing infant. It is something like the lungs in structure, the mother's blood, corresponding to the air in the lungs, being on one side of the thin membranes of which it is composed, and the infant's blood, corresponding to the blood in the lungs, being, on the other side, ready to receive the nourishment which passes through the membrane.

By means of the nourishment thus provided the infant grows and develops, and as he does so the womb itself both grows in substance and enlarges by the extension of the muscles which are afterward to crowd the infant into the world. During this growth the upper part of the womb first sinks downward, owing to its increased weight, and by so doing it presses and drags upon the nerves in such a way as to induce the distressing "**morning sickness**" with which so many women are afflicted, and which, in connection with a cessation of the monthly period, is one of the best early evidences of conception. The trouble consists of nausea and vomiting, with distress about the stomach and abdomen, usually, but by no means always, limited to the morning. It lasts from a week or two to six or eight weeks, sometimes is not experienced at all, and again continues through the whole pregnancy. Sometimes it is a matter requiring the careful study of the physician, as the patient, from inability to retain food, may be in danger of starvation; but such extreme cases are very rare. The best home-treatment will consist in lying down, with the head lower than the hips, during the

time that the sickness usually continues; in applying hot wet-cloths to the stomach and lower abdomen; and in using such articles of food as the patient craves, in small quantities, provided the patient knows them to be easily digestible. It is often a successful plan for the patient to eat lightly before raising the head from the pillow in the morning, and to lie quietly for half an hour or more after thus eating. Bits of ice in the mouth may allay the disturbance. The best medicine will be *Ipec.*, if constant nausea be present; or *Nux vom.*, if the sickness be limited to the morning or follow eating, with headache and constipation; or *Puls.*, if the trouble be chiefly in the evening, or if it come on an hour or more after meals, and if there be especial repugnance to fat foods and longing for fresh air. Give the medicine, dissolved in water, a teaspoonful dose, every hour.

But the growth and development of infant and womb continue, and presently the latter, although still heavier, is obliged to rise into the abdomen, because it becomes too large to remain longer in the lower cavity, which is bounded by bone. Growing and rising, the womb is now supported largely by the muscles of the abdomen, which it distends gradually more and more, thus putting before a vain woman a strong temptation to reduce her size by lacing. It would seem hardly necessary to condemn this practice in a book designed for sensible people, and yet women who will lace, to the disadvantage of both themselves and their unborn and unconceived children, are not wanting in spite of endless warnings, and such will sometimes continue their wretched practice while their bodies are striving

to furnish the space demanded by nature for the development of a new human being.

It seems to be nature's intention that the unborn infant shall have space enough for some motion. All muscles grow by use, and this is true even before birth; so usually, in the fifth month after conception, the expectant mother can distinctly feel the motions of her babe within her. Free play should be allowed these motions by easy clothing, and provision should be made for an abundant circulation of blood, and for the organs which are displaced by the growth of the womb. A healthy woman should need no support for the womb, outside of that naturally provided by the muscles and ligaments of her body, and if she be not healthy, and do need such support, it should be applied by a physician, who will be sure to do it in a way that will allow the processes going on within the womb to continue untrammelled.

During the whole time that the growing infant remains an inhabitant of the mother's body, she should take particularly good care of herself. She should endeavor to maintain that state and disposition of mind which she would like to find habitual with her child; she should contemplate the characters, and study the lives of such persons as would be worthy examples for the imitation of the young; she should keep before her such ideals as she would like to have the inspirations of her offspring. She should avoid excitement or violent emotion, but if by chance some great shock should come to her, she should not brood on the thought that her babe may carry some evidence of her emotion in his

body through life. It is true that startling events occurring to a woman while carrying a child have left their impress in some way upon the babe, but such instances are the rare exceptions, and are much more likely to result, if at all, from the after-brooding upon the event, than from the transient passing shock, however severe. Our children reproduce our permanent traits of character, not the passing incidents and accidents of our lives.

Physically the expectant mother needs air and exercise in abundance, regular habits, and a well considered diet. She needs plenty of fresh air, because her blood is conveying the impurities of two bodies to her lungs, and must there gain the oxygen required for the support of two lives. She ought to live much out-of-doors, and when obliged to be in the house she should insist upon the thorough ventilation of the rooms she inhabits, and particularly of her sleeping apartment. She needs plenty of exercise because the precious burden she bears is something of an interference with vital processes in her own body, which are aided by exercise, such as the movement of blood and the activity of the intestines and other organs in the abdomen. But her exercise should neither be violent nor tiresome. Walking, carriage-riding, croquet, gardening, sweeping, and the like will be of decided advantage if not carried to excess.

Regular attention should be paid to the bowels—a matter of special importance at this time—and sleep should be long and undisturbed. Nine hours each night, with a nap in the afternoon, will do no harm

whatever to the expected stranger or his mother. Baths should be frequent, and not too warm, as it is important that the skin be active and responsive to the changes of weather, but the water should not be cold enough to give a shock, or to require too much vital force to bring' about a reaction from its effect. The bath ought to be between 85° and 90° F. by the thermometer, continue not more than five minutes, and be taken just before one or the other meal.

In regard to diet, the woman in the condition under consideration will do better to vary somewhat the plan that answers well enough at ordinary times. The new being who is drawing his supplies through the mother's stomach, is like the rest of the world, in that he grows by what he feeds upon. It is the design of nature that he should grow in the womb to such a degree of strength and development that he can subsist independently in the outer world, and as soon as that result has been accomplished she turns him out of his warm nest to fight the battle of life as an independent existence. But nature does not insist that the infant be well covered with flesh at the time of birth, and in the matter of weight it is manifest that the lighter the child is, the easier he can be brought into the world. The mother ought to live well, and upon wholesome and nourishing food ; but this she can take in such quantities and at such times as to materially affect the size and weight of her babe, and, consequently, her own comfort during his birth.

Two meals daily should, as a rule, be the limit for the expectant mother, and these should divide the day into

fairly equal portions, of course allowing the longer interval to include the time of sleep. If it seem impossible to pass the time of the third meal without putting something into the mouth, let it be such food as will fill and thus quiet the stomach, while yet adding little or nothing to the substance of the body—for example, oranges and other juicy fruits, jellies, and water-ices. In this way the cravings of hunger may be stilled, while yet substantial food is limited in quantity. In fact, what is commonly called hunger is often but appetite recurring at a time when it habitually is gratified, as is shown by the disappearance of the sensation when the regular hour for a meal is passed without eating, and probably most healthy persons would thrive quite as well as at present were they to reduce their meals to two. But the expectant mother should certainly, at her two meals, provide substantially for her own and her child's needs.

Yet intelligence should choose the kinds of substantial food with direct regard to the needs of the two bodies that are to be fed. While an easy birth depends much upon the size and weight of the infant, it is also important that the cartilages, of which all bones are at first formed, should be but imperfectly hardened into true bone. The softer and more flexible the bones of the infant are at birth, the easier will the passage be made, and considerable variation in this respect is quite consistent with the health of the child, and depends directly upon the amount of bone-making food taken by the mother. It should be said right here, however, that the less of this food she consumes before the birth, the more of it she should take as soon as that event is passed,

that the bones may be made from her milk that were not made in her womb.

The most appropriate diet for the period under consideration will be selected from the following list: Acid fruits, lemons, rice, sago, tapioca, cabbage, turnips, parsnips and fresh vegetables generally, fish, honey, and molasses. Meats should be used sparingly, and the younger meats, as veal and lamb, preferred; chicken and other fowl may be eaten, and tea, lemonade, and water should be the beverages, care being always taken to use soft or distilled water both for cooking and drinking.

Quite moderate use may be made of sugar, butter, and corn. Bread made of wheat, Graham, or rye flour, should be used very sparingly, and it would be better to substitute rice, sago, and tapioca for it altogether. Potatoes, peas, beans, lentils, salt and the strong meats, especially salted or preserved meats, are to be entirely avoided, as are all indigestible, rich, or spicy dishes, and coffee. When the babe is born the diet should be just reversed, except that indigestible, rich, and spicy dishes, and coffee, are still to be kept on the forbidden list.

CHAPTER XII.

THE MOTHER.

Pregnancy is popularly supposed to be a period of about nine months, but, like everything terrestrial, it is of uncertain duration, and varies from seven months, to nearly a year in cases in which healthy children are started on their career in life. As a rule, however, it ends about two hundred and eighty days, or ten lunar months, from the beginning of the last monthly sickness of the mother-to-be. It seems, in fact, to be the tenth expulsive effort of the womb, which, were it not for the pregnancy, would succeed at each effort in casting off the blood whose flow would mark the monthly production of an egg. A woman whose periods habitually recur in less than twenty-eight days will be likely to find her pregnancy terminated in a time proportionately less than two hundred and eighty days, while, in the same way, habitually delayed courses point to a delayed labor.

The indications that the termination of pregnancy is approaching are not always present in such a form as to attract the attention of the expectant mother. She may even be taken so much by surprise as to find herself in a very awkward situation when her babe begins to enter the world. Within a few months two

births have occurred in the horse-cars of New York City, the mothers being women in the humbler walks of life, who undoubtedly were taken very much by surprise. A mother who has borne children before is less likely to be thus unprepared, but instances of that kind are not unknown.

In the last two weeks of pregnancy the upper part of the womb settles down somewhat, and if, at its highest point, it have interfered with the breathing or digestion, the relief experienced with regard to those functions is a sign of approaching labor. Quite often, also, there is a discharge tinged with blood from the vagina for several days before the pains come on. False labor pains are very common, but they may occur monthly, during the whole pregnancy, at the time when ordinarily the menses would have appeared. It will be right difficult for the inexperienced and unprofessional woman to distinguish the false from the true labor pains, but the false lack the regularity of the true, and grow weaker and weaker as they continue. False pains are so called because they simulate labor pains in their location and character, but they accomplish nothing toward the expulsion of the infant. They are produced very much as are the neuralgic and spasmodic pains that are apt to appear in various parts of the body, aside from the womb, at about this time.

It is taken for granted in writing these pages that the reader who is expecting to give birth to a child has put her case into the hands of a competent physician, whom she has allowed and assisted to become thoroughly familiar with all the details and peculiarities

of the situation, whose advice she has followed in all points, and upon whom she relies to render whatever services may be needed of a professional nature when the interesting event takes place. She is, therefore, presumed to be reading these chapters for the purpose of preparing herself for what is to occur, that she may avoid surprises and misunderstandings, and be able, by the aid of friends, to protect and assist herself, if by any means her physician should not be at hand at a critical moment. Labor cases should always be in charge of physicians, not because they do not, as a rule, progress in nature's own way without need of interference, but because the times when interference will be imperatively and immediately needed cannot be told in advance, and are of so frequent occurrence as to make it every woman's duty, at such a time, to have her medical adviser at hand, and to give him every opportunity in advance to learn what may enable him to ward off or to prepare for trouble. But the baby waits not for the doctor, and if the latter be unavoidably detained, the mother and her friends should be provided with such information as will prevent accidents and bridge over difficulties till he arrive.

When labor has fairly begun, the mother will betake herself to her bed, there to remain without break or interruption for at least ten days. Therefore the bed should be carefully prepared for her comfort. On many accounts it is well to have two beds prepared in the same room, so that after the labor the woman can be lifted into a perfectly clean bed in which to spend the first days of motherhood. There is, however, one

very decided objection to this plan in the fact that many women will insist upon helping themselves more or less when their position is to be changed, while they should be absolutely passive about all such matters. But if the woman can submit to be passively lifted into bed when she is ready for it, decidedly the best plan is to make use of a simple cot for the labor. This being narrow enables the physician to reach his patient from either side with equal facility, and when all is finished the cot can be placed beside the clean bed, into which the patient can be easily lifted, and then the cot, with all the soiled linen, can be bodily taken from the room. But if only one bed be used, it should be wide, and when properly prepared this will usually answer every purpose.

The room selected should be as large, sunny, and airy as possible. It ought to be cheerful and quiet, and arranged so that it can be conveniently heated if the labor occur in cold weather. The bed ought not to be too soft ; a good hair mattress is generally best, and, if it is to be used for the labor, directly upon the mattress should be laid a rubber sheet to cover the middle, sides, and edges of the bed. Upon this should be laid the sheet, and the bed made up as usual.

The mother's dress for the bed should be, first, a sheet, doubled lengthwise and fastened about the waist, not too tightly, and in such a manner that the edges hang down, and that the opening is up the front. This should be put on just before it is time to go to bed ; and over it should be worn a night-gown, which should be pinned up so that no part of the night-gown comes below the upper part of the sheet. These items

have an important bearing on the mother's comfort. The sheet is an extra protection to the bed, and will also protect the mother very nicely while yet offering little obstruction to the physician in attending to his duties. The night-gown is designed to cover the shoulders only during the labor, and to be ready for use after all is over, without requiring the mother to rise in order to put it on; but it must be pinned up at the highest possible point in order to be secure from soiling, for if any of the discharges should reach it, no careful physician would allow it to be longer worn.

There should be a number of things provided in the room, or within easy access. First, a strong sheet should be firmly tied to the foot of the bed, upon which the mother may pull during her pains. There ought also to be an abundance of clean towels and napkins, both small and large, at hand. Provision should be made for the instant reception of these cloths when soiled. A number of small pieces of old, soft, clean cloth may be wanted, and some yards of small and soft, but strong, twine should be within reach, and with these articles should be a pair of sharp scissors. Small clean bits of soft sponge are often useful in these cases. Hot water in large quantities will be required, and there may be an even more urgent demand for ice-water and for pieces of ice of about two to three inches in diameter, which have lain in water long enough to be smooth and quite free from scratchy points. A supply of crystals of alum of about the same size should also be provided. Vessels to receive discharges and the after-birth will be needed, and pro-

vision should be made to secure a good light on the bed. In case but one bed be used, an entire change of bedding, clean and warm, should be ready, and two or three binders must be prepared, and the one to be first applied should be warmed. Two dozen safety-pins will be used by mother and child together.

The binder should be of unbleached muslin, long enough to reach around the body and lap several inches, and from twelve to fifteen inches wide when doubled. In addition to the above, a bed-pan is a convenient but not an essential article, and all arrangements should be made to care for the mother without allowing her to lift her head from the pillow for at least ten days. Stimulants should always be within reach, and camphor, ammonia, arnica, soap, vaseline, sweet-oil, a bottle of Platt's chlorides, and a syringe (Davidson's No. 1 is the best) are never out of place, and may be invaluable. The articles required for the child are mentioned in the first and second chapters.

And now all is in readiness and nature begins the operation that is to give the world a new citizen, the mother a new child. The process is a painful one, as all the world knows, but if wisdom have guided the preparations and no accident occur, it need not be a very tedious or prolonged effort. Just how long the labor is to continue no one can foretell, no matter how experienced or careful he may be. Some women are so favored that in half an hour the whole process is a thing of the past, while others suffer for days, only to be relieved by surgical skill at the last. The majority of labors last from three to ten or twelve hours; first labors

are apt to be longer than subsequent efforts of the same woman, and usually the older a woman is on reaching her first labor—if she be thirty or more—the longer and more difficult it is likely to be.

Labor is usually divided into three stages: First, the womb must open to allow of the exit of the child ; second, the child must be expelled ; and third, the after-birth must be dislodged and cast off. During the first stage the woman experiences pains of a cutting, drawing character, she is apt to feel chilly and sensitive, the latter particularly about the womb. The pains intermit and come on with regularity, and while they seem severe they are milder than those of the following stage. During this stage the woman may be up and walking about. She should on no account make any effort at bearing down, and she should by all means empty both bowels and bladder at this time. She ought, however, to avoid any straining at stool, and it is generally better to take a full injection of warm water, using a quart or more in which soap has been dissolved. At this time, too, it will be advisable to thoroughly anoint the vagina and the external parts with vaseline or sweet-oil. An injection of sweet-oil, warmed, of course, into both the vagina and the back bowel will materially facilitate the passage of the child.

During this stage there is little or nothing that anyone can do, more than that is described above. The physician, if present, will note the position of the child, and take measures to secure an easy delivery ; but any other than professional attention to such matters is not to be advised.

Soon the character of the pains changes, and the beginning of the second stage is announced by expulsive efforts, which crowd the head of the child downward on its passage through the bones of the lower abdomen. About this time will occur the breaking of the bag of waters, an event that is apt to startle one who is not anticipating its occurrence. The infant floats in the womb, the liquid surrounding it being enclosed in a sac which usually breaks or is broken early in the labor, allowing the waters to escape, which they do with a gush.

As soon as the expulsive pains begin it is time for the woman to take to her bed, where she is to retain the horizontal position strictly for at least ten days, if everything goes well. She may lie on either side, or on the back, as she prefers, or as the doctor directs. And now she ought to do what she was advised not to do in the preceding stage; she should make voluntary bearing-down efforts. Such efforts, however, should be made during the pains, and she should rest between them. The pains result from the contractions of the muscles of the womb, and it is these contractions that send the infant forth. They can be aided by voluntary effort, but it is better to rest with nature, and to work only when she takes the lead. The sheet which has been tied to the foot of the bed will now come into play, and will be appreciated by the mother. She may rest her feet against the footboard, or brace them on some firm object, and pull on the sheet to her heart's content. For a change, it is sometimes helpful to let the woman grasp the wrists of some sturdy friend, who

in turn grasps her wrists, and allows her to brace her knees against the friend's chest; in this way much assistance may be rendered.

In this stage, as in the preceding, there is little that the unprofessional assistant can do beyond soothing and encouraging the sufferer. If all things progress favorably the head, when it appears, may be supported as already described in the first chapter of this book; but no effort should be made to draw the infant out of the mother's body till all but the feet and legs of the child are in the world. In supporting the weight of the child the effort should be to keep pressure off from the flesh between the vagina and the back bowel, as this is the part most likely to be injured, if any mischance befall the mother.

During this stage of the labor a strong desire to empty the bowels or bladder, or both, is not an uncommon experience, but the woman must on no account be allowed to rise to attend to these calls. If a bed-pan have not been provided, the discharges must be received in cloths or sponges. Babies have been delivered into water-closets or vessels more than once, at the risk of their lives, by allowing the mother to go to stool during the second stage of labor; and women are to be found on all sides who are the worse for rising during, or too soon after, childbirth. It is highly important that both bowels and bladder be empty, as the infant passes into the world, and if these points were neglected during the first stage of labor some difficulty may be experienced later in securing the needed relief. At times the physician's aid in emptying the bladder will be imperatively

demand, but usually the nurse can render all needed assistance.

When this stage of labor is completed the infant is fully born and should be cared for as directed in Chapters I. and II., where full instructions for the cutting of the navel-string are given. The first thing to do for the mother is to ascertain if a second child remain in her womb. If so, after a short rest, the contractions of that organ will be resumed, and the processes of the second stage of labor will be repeated. Usually the second child will be born somewhat easier than the first, owing to the dilatation the parts have already received, and, in fact, when two infants are in the womb both are apt to be rather smaller than usual, to the decided advantage of the mother. The question of a second child is to be decided by feeling over the womb through the soft, relaxed, and flabby walls of the belly, which are now in such a condition that the members of a second child's body can be plainly made out.

If the second stage of labor be complete, the womb will probably rest a short time before finishing the work of emptying itself, and during this interval the mother should be covered and kept as quiet as possible. But in the course of half an hour pains and contractions should again come on, in all respects similar to those of the second stage, but intended to cast off the after-birth. If such pains do not come on something should be done to excite them. A little *gentle* pulling or a few *slight* jerks upon the mother's end of the navel-string may be tried, to see if the after-birth, to which this string is attached, be loose ; but if it resist, an inex-

perienced person ought not to pull on the string, since it might break, or the after-birth might be pulled away in a manner that would result in dangerous bleeding, or the womb itself might be drawn out of shape with serious after-consequences. It will be better to try to find the upper part of the womb, through the walls of the belly, and to squeeze it between the hands from side to side. If this be not successful the hands of the nurse may be dipped for a moment in ice-water and then similarly applied. Be careful not to crowd the womb downward toward the vagina, and if the efforts detailed do not cause the contractions desired, and no physician have arrived yet, send for another physician and leave the case to him.

Usually, however, the after-birth is delivered without trouble in from half to three-quarters of an hour after the baby is born. It will be seen lying partly in the vagina, and *great* care must be taken in removing it that not a shred or particle of it be left in the womb, as it will presently decay with most dire consequences. It must be handled gently. Do not try to draw it out, but twist it round and round, so that all the membranes are gathered to it and all come out at once. It may be dropped into a vessel, and the best ultimate disposition of it is by burning it in the stove or furnace.

The labor is now over, and the first thing to do, and do at once, is to thoroughly wash the mother, by the aid of cloths, sponges, and warm water. It is well to rinse out the vagina, and for this purpose a syringe should be used, but the nozzle should only be entered about an inch. Warm water (of 100° F.) containing about

one part in ten or twelve of Platt's chlorides, is better for this purpose than clear water. This done, all the soiled and wet articles of every description should be removed, including the sheet worn by the woman about her waist, and if the labor have taken place on a cot, the woman should be transferred to her bed by lifting her in the horizontal position and in a passive state. Her night-dress may be unpinned, and if it have escaped soiling entirely it may be used, but if not, it must be changed with the least possible disturbance. If the labor have occurred in bed, the woman should be now placed upon one side of the bed, the soiled linen removed from the other side, and that side made up fresh, leaving the portion of linen for the side under the woman gathered up in the middle. The woman should then be carefully lifted on to the clean side of the bed, when the soiled linen can be removed and the other side made up without disturbing the new mother.

Next the binder is to be applied. This requires some skill and knowledge, but can hardly be called a difficult operation. The binder should be pleated up closely for half its length, the woman should then be gently turned on to one side, and the pleated portion laid at her backbone with the smooth part over her upper side. If, now, she be turned back and a little to the other side, the pleated part can be drawn out and made to meet the other half over the abdomen with very little annoyance to the patient. The bandage or binder should come down well on to the hips, so as to cover the hair at the lower part of the abdomen, and just over and above this hair the binder should be drawn most tightly. In fact,

it would be well to lay in several folds of napkin under the binder at this point to increase its pressure for two or three inches, while above that it should gradually be pinned more loosely, till at the top little or no pressure is exerted. Too much pressure at the top of the binder may do harm. The binder should be free from wrinkles when finished, is to be held by from six to eight safety-pins, must be changed as often as it becomes soiled, and may be worn as long as it adds to the comfort of the mother, but should not be laid aside under a month. To it should be attached a soft napkin to receive the discharges from the womb and vagina, this to be changed frequently in the first few days, and arranged to protect the binder from soiling as far as possible. The greatest care must be taken to preserve perfect cleanliness in everything about the new mother, and no discharges must be suffered to soil her person or clothing, or, if soiled, she must be at once cleansed. This is a very important matter.

As soon as the second stage of the labor is finished, a dose of *Arnica* and *Puls.* should be administered. Put both medicines together, using of the tincture of each five drops, in a glass two-thirds full of water, and administer two teaspoonfuls once in two hours for the next four or five days, unless later some other medicine be required.

By the time the binder is applied the baby will have been washed and dressed, and may be put to the breast for a short time, after which the mother should compose herself for a nap. As has been already said several times, the mother should lie quietly in bed for

full ten days after a labor, and longer if her physician think best. For at least five days she should not even sit up to have her hair combed or to discharge her passages. Nor should she be allowed much company, absolutely *no* visitors for the first five days. Quiet and rest, with nourishing food, are what she needs, and nothing ought to be allowed to prevent her from having them.

And during the labor she ought to have as few attendants and as quiet ones as possible. The doctor, the nurse, and perhaps a quiet messenger to hand needed articles, are all the persons that should be in the room. Conversation during the whole confinement should be very little, and quiet should be studiously preserved. Haste, noise, and excitement should be unknown in the neighborhood of the woman who is passing through the ordeal of childbearing.

CHAPTER XIII.

DISORDERS OF PREGNANCY AND LABOR.

What has been already said regarding pregnancy and labor applies entirely to cases that occur in healthy women, and that go on as they should without accident. When, from any cause, events deviate from the natural course, it is always the aim of the wise physician to so treat the case as to bring it within the rules laid down for the management of natural labors. Many of the disorders and accidents which may occur in the course of pregnancy are entirely without the scope of the present volume, but others can be benefited by home treatment, carefully administered.

Morning Sickness is so usual a difficulty as to be almost considered a part of the normal pregnancy, and hence has been already considered in Chapter XI. A difficulty hardly less common is

Constipation, with which too many women are afflicted at all times, and which is apt to become specially obstinate as the womb increases in size. It seems to depend, not so much upon the pressure exerted at any point directly upon the bowels and their contents, as it does upon the interruption to the free motion of the bowels in general, owing to the fulness of the abdo-

men, and the greater tendency to a sedentary life which accompany the condition we are considering. Bowel movements depend on bowel activity, and that to a large extent on bodily activity. Hence, when the tendency to bodily inactivity is associated with conditions peculiarly favorable for the inducing of a constipation, that difficulty is almost certain to be present and intractable. In fact, every cause of constipation is favored by the presence of an unborn infant, and hence every effort should be made by the expectant mother to avoid all things that are known to have a tendency to bind the bowels. She should resolve to have two regular daily passages; she should set the hours for those passages, and rigidly adhere to them. When those hours arrive she should attempt to have a stool, and persist in the attempt till she succeeds. She should partake of food that is known to have a loosening tendency upon the bowels, such as ripe fruits in their season, figs, stewed prunes, Graham bread, oatmeal, and the like. She should drink abundantly of hot water, using more and more daily as she becomes accustomed to it, till she takes as much as six or eight glasses in twenty-four hours. If these means are insufficient she may resort to injections of moderately cold water, using from a pint to two quarts, in which soap has been dissolved. Cathartics of all kinds should be used only on the prescription of a physician.

If the means suggested are not sufficient, the case probably requires a medicine, and one of the following may be selected and taken in water, a tablespoonful four times daily : *Nux vom.*, where there is ineffectual

urging to stool with frontal headache; *Bry.*, when the stools are hard and dry, as if burnt, with much thirst; *Sepia*, or *Sulph.*, where the above medicines fail, the latter, especially, if the stools be very scanty. It is a very remarkable fact that obstinate constipation will sometimes yield to the use of small quantities of sweet-oil, and the remedy has no tendency to bind the bowels as an after-consequence. The best olive-oil should be used, and may be taken in doses increasing from a teaspoonful to a tablespoonful, on rising in the morning, a half hour at least before eating. Similar good effects may also often be secured by chewing thoroughly, and afterward swallowing, from a teaspoonful to a tablespoonful of unground flaxseed or linseed, and this too should be used early in the morning, and half an hour before eating. If constipation yield to none of these measures a physician should be consulted, but it should not be forgotten that after the delivery of an infant the mother's bowels ought to remain inactive for four or five days, and should not be disturbed in any way. Of course, under ordinary circumstances, one daily movement will be sufficient. The opposite condition of

Diarrhœa is sometimes present, and should be met by rest and simple food in small quantities. Let boiled milk be the main reliance, with beef-tea, soups, and boiled rice as a change. The best medicine will be *Chin. ars.*, of which a powder may be taken dry, on the tongue, four times a day, and if there be frequent watery stools, a powder may follow each stool in addition to the regular dose. Use as much as can be heaped on an old-fashioned three-cent piece at each dose. The same

medicine will be wanted for a diarrhœa occurring at any time.

Piles frequently trouble the pregnant woman, and are almost always associated with constipation. They consist, in the first place, of swollen blood-vessels, both in and outside of the orifice of the bowels, which become altered by time, occasionally bleed more or less, and are always painful at the passage of a stool, the pain being sometimes excruciating, and continuing long after the bowels are emptied. They are caused by pressure upon the vessels that return the blood from the lower bowel to the heart, or by obstructed circulation in those vessels. Under ordinary circumstances the liver is at fault, but in pregnancy the weight and size of the womb may be the chief cause.

Prevention is better than cure, and may be accomplished by such attention to diet and exercise as will keep the bowels open, and the circulation active. When the condition is established, the first care should be to cure the constipation, as nothing is worse than the irritation of a difficult stool, and the weight of a loaded bowel is an important item in causing the trouble. To soften a mass of hard matter in the bowels inject once every two hours four tablespoonfuls of pretty warm water, and retain it in the bowel. Then, when the time for stool comes, give a large injection of warm water, and follow at once by a few spoonfuls of warm sweet-oil to lubricate the passage. The nozzle of the syringe should always be oiled and passed with great care, and quite deeply, into the bowel. The syringe should be full before the nozzle is inserted.

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The medicines of most service in this complaint are *Aesculus hipp.*, if the bowel feel very dry and full of sticks; *Bell.*, if there be much throbbing pain, with fever; and *Ham.*, if much blood be lost. These medicines should be taken in water, a teaspoonful every hour or half hour, and if a medicine for constipation be also needed, it can be put into the same tumbler of water. If the pain be very severe, and be not relieved by these medicines, it will be well to get, at a drug store, a bottle containing two ounces of glycerine, in which forty drops of carbolic acid have been dissolved, and mixing one-half a tablespoonful of this with four tablespoonfuls of water at 110° F., inject it into the bowel and retain it there. Do not, on any account, allow an operation to be performed on piles during pregnancy, and be very wary about having such an operation, or any quick cure of piles performed at any time. It takes fully two years' treatment to cure piles without danger to the patient.

During pregnancy women are particularly liable to turns of **Fainting** and to **Cramps** in various parts of the body, but with regard to the treatment of these troubles nothing need be added to what was said in Chapter VIII. (pp. 152 and 153). Many other difficulties especially common at the same time require precisely the same treatment that they would receive under ordinary bodily conditions.

The Breasts are to be well cared for during pregnancy, as any accident or disease affecting them is of serious consequence to two individuals instead of one. If the breasts have been maltreated by corsets, there is

just so much more need of carefully watching them as the milk begins to accumulate. As the breasts begin the active secretion of milk they are apt to be painful, and when this is the case it is well to apply hot wet-cloths covered with dry flannel, the application to be renewed as often as the cloths cool, and continued till the pain subsides. If a medicine be needed, *Bell.* answers best where there is redness, heat, and throbbing pain. Give it in water, two teaspoonfuls once in two hours. It is well also to support the weight of the sore breast by arranging a sling around the neck.

If the Nipples be sunken into the substance of the breast they must be drawn out before birth. This can be done by the suction of some friend's mouth, or a large-mouthed bottle may be heated in very hot water and the mouth of the bottle closely applied around the nipple, so that as the bottle cools it will suck the nipple out of its bed. If the nipples be fissured, have the appearance of a strawberry without being sensitive, or if they be sensitive with or without these appearances, they must be toughened before the infant needs to use them. In fact, it is better in all cases to guard against trouble by preparing the nipples for service. For this purpose have a druggist mix together half a pint of good *Brandy*, half an ounce of the tincture of *Arnica*, and a drachm of *Borax*. With this mixture rub the nipples morning and night. Use the mixture generously and rub vigorously.

If nursing result in sore nipples the best application is, "Mrs. Halliwell's Nipple Liniment," which can be had of the publisher of this work, or Messrs. Bean &

Rabe, of Philadelphia. The liniment should be applied after each nursing, and does not require to be washed off before giving the baby the breast again. The same firm also furnish a horn shield, which fits over the nipple, preventing the liniment from drying, and protecting the clothing from contact with it. These shields must be used with the liniment, and can be had of the publisher of this work.

The milk is not formed in the breasts for a day or two after the birth of the child, but there is something else in the breasts, which it is well for the infant to draw into his stomach. When the milk is formed it is sometimes of such poor quality that the infant does not thrive upon it; again it is too scanty, and not infrequently too abundant, so that it runs out of the breasts spontaneously. This too-abundant secretion may annoy very weakly and ill-nourished women, and be a great drain upon their already reduced forces, and in such cases the milk is pretty sure to be of poor quality.

The nursing mother needs a strong and substantial diet of milk, meat, eggs, beans, corn, peas, milk, sugar, butter, potatoes, and milk. She ought also to make generous use of milk—milk raw, or milk boiled, or milk cooked, or milk prepared with Fairchild's peptonizing powders, or ice-cream—in any form in which it is or can be made acceptable let her take good, rich milk. She is not to overload her stomach, or eat to excess, and she is by no means to neglect air and exercise. Abundance of fresh air, abundance of sleep, abundance of milk, plenty of good food, and plenty of exercise should result in plenty of nourishing breast food for

the infant. Give the breast regularly, as directed in Chapter II. Regular nursing will do much to regulate the milk supply.

Too much milk for the infant is best treated by having the breasts drawn by a breast-pump, or, much better, by the nurse or some friend. Only draw enough in this way to relieve the breasts, since emptying them is a stimulant to them, while allowing them always to retain milk tends to reduce the supply. If a medicine be needed, select *Calc. carb.* for too abundant milk; *Acet. ac.*, if the tension of the breasts be painful from too much milk, and *Phytol.*, if the excessive flow be exhausting to the mother. Take the medicines in water, a tablespoonful four times a day.

If it be necessary to cease nursing and to stop the flow of milk entirely, this may usually be done without trouble. Simply stop. If the breasts become distended, draw off the surplus milk only. If they become painful, apply hot cloths as directed above. If they become sore and develop lumps, they should be rubbed four times a day with camphorated oil, always rubbing toward the nipple.

A scanty supply of milk should be treated, first, by persistent regular nursing and the diet already advised. Dry rubbing of the breasts will help, and the application of a flax-seed poultice is of frequent assistance. If the milk be of poor quality, a dose of *Calc. phos.* in water should be taken, a tablespoonful four times a day; or, if the mother be weak and debilitated, *Puls.* may be used in the same way, or mixed with *China* in the same glass. If other treatment be re-

quired it should be administered by the physician, and unless positively advised by him, the plan of using ale or porter to stimulate the secretion of milk should be carefully avoided.

Abortion, or Miscarriage, is one of the most serious troubles of the period under consideration. It occurs more commonly about the regular time for the monthly sickness, and depends upon various causes. Any disease or injury causing the death of the unborn babe will bring it about, and anything that under ordinary circumstances would be likely to occasion an irregular monthly sickness, may, in the pregnant woman, cause an abortion. A woman who has had an abortion should take the greatest care of herself at the period in her pregnancy at which the former abortion occurred; and, in general, it is better to keep track of the regular times for the monthly sickness, and at those times, throughout the pregnancy, to endeavor to lead an especially quiet and regular life. Any unusual sense of weight or heaviness in the region of the womb should put a woman on her guard, and if this feeling be accompanied by some discharge, with pain in the back, and nervousness, a physician should be summoned.

The two great dangers in abortion are, first, the loss of blood, and, second, the retention in the womb of dead matter. If blood begin to flow from the womb, get the patient on her back as soon as possible, and have the hips raised higher than the head, and send at once for a physician. Loosen the clothing; if the woman can be got to bed, undress her while lying, and put something under the foot of the bed to raise it three or four

inches. If the bleeding continue, try to stop it by placing a soft napkin in the vagina, and give *Sabina* in water, a teaspoonful dose every five minutes, or at longer intervals if the bleeding be slight; and as soon as possible have a rubber ice-bag filled with small, broken lumps of ice, and applied to the backbone. Let the patient lie on this ice-bag till the bleeding ceases. If any clots or solids, of whatever nature should be passed from the vagina, be particular to preserve every one for the inspection of the physician, as only by the careful examination of an expert can it be known if all the contents of the womb have been expelled, and if a part remain, as it may do for months, most serious consequences may follow.

One of the accidents of labor needing prompt attention is the protrusion of the navel-string before birth. If this should occur when the physician is not present, take a small, flat piece of sponge, cut a hole in its middle and moisten it. Then draw the loop of navel-string gently through this hole, slip a piece of tape through the loop of navel-string to prevent its slipping out of the sponge, then place the mother on her knees and chest, so that the weight of the infant will carry it toward the stomach and away from the vagina; then try to pass both navel-string and sponge into the womb, and, if possible, above the child's head, and hold them there till a pain comes on. Then press up the womb through the walls of the belly, so that the child's head will crowd past the sponge, and afterward let the mother again lie on her back. Gently draw out the tape, leaving the sponge and navel-string in the womb

above the child's head. If the navel-string hang down below the child's head, so that it is pressed upon during the birth, the child's nourishment is entirely cut off, and his death is almost certain to be the result. Hence act promptly.

After-pains are more apt to annoy women who are passing through the third or a later confinement, than those who are having their first or second experience; and this is because each labor leaves the fibres of the womb more relaxed and less able to promptly resume their usual state, or to crowd out any clots of blood that may form in the organ. Usually such clots are the exciting cause of the pains, which are due to contractions of the womb muscles, precisely as are labor pains. If the pains be associated with fever of a marked character, a physician should examine the case at once, as an inflammation of the coverings of the womb may be beginning—a much more serious matter than after-pains, and one which often occurs at about the same time after delivery, namely, within the first few days.

If the directions already given to administer a few doses of *Arnica* and *Puls.* immediately after delivery have been followed, the liability to after-pains will have been considerably lessened. A properly adjusted bandage, too, giving considerable pressure at the lowest part of the abdomen and less higher up, will help greatly in preventing these troubles. Should they occur, however, hot wet-cloths applied to the abdomen, and a dose every half-hour of *Arn.* and *Puls.*, will usually give relief. Put five drops of the tincture of each medicine together in a glass two-thirds full of water, and give a

teaspoonful at a dose. If the sensation be chiefly in the groin, and there be nausea and vomiting, substitute *Cimicif.* for the *Puls.*, and if the after-pains be long and continuous, and especially if there be a sense of coldness without a wish for covering, use *Secale* in the same way ; a dose of the solution every half-hour, or at longer intervals as the patient improves. While the trouble continues the woman should cease nursing, providing for the baby for a day or two by hand-feeding, as described in Chapter II.

Lochia is the name given to a discharge from the womb which continues from the labor to the time when the womb has nearly regained its usual size and shape. This discharge is at first quite profuse, and almost pure blood, but it gradually becomes more watery and diminishes in quantity. As soon as the milk appears in the breasts there is apt to be a noticeable, but temporary, reduction in the quantity of the lochia, the flow soon becoming more abundant again. After a week this discharge should contain very little blood. The quantity during the first day is usually sufficient to soil ten or twelve napkins. From this amount it should decrease till at the end of a month hardly any discharge should remain.

The discharge may continue too long or be excessive, it may be suppressed or it may become offensive, in the last case usually indicating that some foreign substance, as a clot of blood, is decaying in the womb. For such a condition it is best to inject into the vagina, two or three times a day, warm water (100° F.) containing about one part in ten of *Platt's Chlorides*, using one or two quarts and allowing the mixture to run rapidly through

the vagina from a fountain syringe. If the offensive discharge be profuse and dark colored, give *Secale*, in water, a dose once in two hours; if scanty, use *Nux vom.* in the same way; if thin and irritating, use *Carbo. veg.* in the same way. If the lochia continue to flow too long and seem to exhaust the patient, use *China*, in water, a dose every two hours. The dose of each of the above medicines should be two teaspoonfuls. If the discharge be suddenly suppressed, with bursting headache, use *Bry.*, in water, giving a teaspoonful every hour. If the suppression were caused by cold or emotion, give *Cimicif.* in the same way.

The other diseases and disorders to which a woman is exposed during and after pregnancy and labor, such as child-bed fever, convulsions, milk-leg, and the rest, are of too serious a nature to be safely treated by the amateur practitioner. One of them, retention of urine, may be benefited by laying hot wet-cloths over the sexual organs and the hair above them, and it is a remarkable fact that a spasmodic retention of urine may be cured by simply pouring water from a height of four or five feet into a basin, in the hearing of the patient. One and all of these troubles, however, should be placed in the hands of the physician at once, and, as has been already said, the whole pregnancy should be watched by a physician, and domestic treatment attempted only when necessity arises during the physician's absence. The dangers to which women are exposed at this time are too great, owing to the unnatural conditions introduced by civilization and fashion, to be wisely met by inexperience and ignorance.

CHAPTER XIV.

DISEASES OF MATURITY.

Several of the disorders which would come very appropriately into this chapter have been considered in connection with some of the epochs and special conditions already discussed. As a rule, it will not be necessary to reconsider such troubles, as their domestic treatment must be very much the same whatever the age of the patient or his condition at the time of his attack. No different plan can be suggested in a work of this character, for the treatment of, say, constipation or piles, than that given in the chapter on the disorders of pregnancy. To that chapter, then, must be referred the sufferer from such troubles, although he may find the chapter as a whole inappropriate to his case and condition.

Headache is perhaps the most common of all the ills to which flesh is heir. It is an accompaniment or premonitory symptom to many diseases, some of them very serious, and it comes often when no sign of disorder can be found in any other part of the body. As a rule, however, the location of the headache gives a hint as to the part of the body where trouble may be present, for unless the head have been directly injured by violence or excessive brain-work, the cause of the headache

is to be sought usually in some remote part of the body. Headaches which locate over the eyes or in the temples usually mean nervous exhaustion or strain, excessive weariness, or loss of sleep. Headaches in the forehead frequently signify a torpid or disordered liver, while those which affect the top or back of the head point to a cause in the lowest part of the abdomen.

Like the causes, the medicines for headache are legion, and it will be impossible in a work like the present to indicate more than a very few of the most frequently needed remedies.

The best cure for the largest number of headaches, is, undoubtedly, the hot foot-bath. Let the water be as hot as can be borne, say from 105° to 115° F., and let it be deep enough to come well up on to the ankles; let it contain about a teaspoonful of ground mustard to each gallon, and let it be taken for fifteen or twenty minutes. The feet, knees, and water should be covered by a shawl or blanket during the bath, and when it is finished the feet should be dried, dressed warmly, and covered as the patient lies down to complete the cure by rest. Headaches caused by disordered bowels, liver, and stomach are most likely to be reached by *Nux vom.* and *Iris* mixed together in a glass two-thirds full of water, of which a teaspoonful should be taken every hour. If the headache result from congestion of blood to the head with throbbing, heat, and flushing of the cheeks, whether caused by over-work, over-heating, confinement, bad air, or worry, the best medicine is usually *Bell.* Splitting headaches, with fever, thirst, sweat, and aggravation from any motion or touch, require *Bry.*

Headaches associated with womb troubles often require *Sepia* or *Cimicif.*, the former where there is nausea and falling out of the hair, the latter where the top of the head is chiefly affected, and there is backache and neuralgic pains in different parts of the body. The neuralgic headaches brought on by exposure to cold, or with catarrhal difficulties, should be treated by *Acon.*, or if the nose run by day, and be stopped at night, with constipation, use *Nux vom.* Applications of cold, wet cloths to the head, or bathing the head for a short time in right hot water, or applications of cloths wet with vinegar often give relief. Each of the medicines mentioned should be taken in water, a teaspoonful every hour, or, if necessary, every half hour.

Sick-Headache is a difficulty which is frequently hereditary, and renders miserable several generations of the same family, often making its attacks with a regular periodicity, the intervals extending with different persons from a few days to a few weeks or longer. The characteristic feature of the attack is the intense nausea and loathing, usually (but not with all persons) associated with vomiting, which comes on when the headache is at its height. The trouble, however, does not begin in the stomach, although it may be caused by abuse of that organ. The first symptom is a headache, beginning at some point usually at or near the temples, and extending itself through the head as it gains in severity. Then comes the feeling of loathing and nausea which presently results in vomiting, often giving relief, and even entire cure a few moments later, but in other cases making no difference with the headache. Some persons can

sleep off an attack, while others suffer two or three days till the headache gradually wears away.

Among the causes of the trouble heredity has already been mentioned, but it is doubtful if it alone can account for any case. Abuse of the stomach, or of the body generally in the character and amount of food taken, or the times of taking it, has much to do with inducing the disease, and with regard to all of those matters it will be necessary for each person to study his own body to find out what affects it unfavorably. Some persons can be radically cured of sick-headache by reducing the number of their meals to two daily, rigidly adhering to that number, and entirely refraining from all eating, except at meal-times. Such persons have sluggish but not unhealthy digestive organs. Others, again, need to increase their meals to four daily, in order to effect a cure. Such persons require more nourishment than their stomachs can provide in three efforts during the day. With many the use of tea, coffee, wines, or tobacco, results in the disposition to sick headache, while with others these articles have quite different effects upon the body. It is well to remark here that those who have been injured by the use of tea or coffee will often find such temporary relief from taking a cup of one of those beverages during an attack of sick-headache, as will lead them erroneously to think it impossible that they should have injured themselves by using these articles.

At the very beginning, if a person know by experience that he is about to have a sick-headache, it often happens that a little easily digested food in the

stomach will abort the attack. But, unless swallowed at the very beginning, food is likely to do more harm than good if taken before the attack has entirely passed over. Usually food is not desired, and when that is the case it is almost invariably right not to take it.

For a medicine undoubtedly *Gels.* is the best; but it must be taken in doses of five drops of the tincture in about a tablespoonful of very hot water. This dose may be repeated after three hours, if necessary. In fact, hot water, if very hot and in large quantities, is an excellent remedy by itself, and may be repeated *ad libitum*, one or two glassfuls at a time. Another excellent medicine is *Puls.*, where the pain gets worse toward evening, and is better in the open air. There is no appetite, no thirst, fat foods are especially repugnant, and the headache is often confined to one side. Give this medicine in water, a teaspoonful every hour. Or *Sang.* may be given in the same way if the headaches are periodical, with sharp, shooting pains beginning at one point and extending over the head, with marked aggravation from motion or from jarring, as by the walking of someone in the room.

A person subject to attacks of sick-headache will do wisely to care particularly well for his stomach, avoiding all spices and highly seasoned foods, all articles that he knows to disagree, all hurried eating, and meals at too short intervals; and he will be likely to gain more than he will lose by giving up tea and coffee altogether, and by making hot water a beverage, using it from an hour to half an hour before each meal, very hot, and as much as six glasses in the course of the day.

Sunstroke is a difficulty caused by improper circulation of the blood, and is excited by excessive heat in those who are exhausted, weakly, ill-nourished, in poor health, or in the habit of abusing their bodies with alcoholic liquors. Probably the last-named class outnumbers all the rest many times. The exciting of the trouble is not necessarily due to exposure to the direct rays of the sun, as excessive heat is the important external element. Confinement in impure air, tight clothing, and lack of exercise are all important predisposing causes. Premonitory symptoms are a feeling of oppression, heat with dry skin, thirst, headache, and dizziness. The drinking of much ice-water in this condition of the body is undoubtedly a dangerous thing, and may hasten the attack. This consists of fainting, usually with falling, perhaps after staggering, with heavy breathing, flushed face, throbbing blood-vessels, fixed, and possibly crossed, eyes, and, in some cases, spasms.

In the premonitory stage the patient should lie down at once. The head may be bathed in cool (not cold) water, and, as soon as possible, the feet should be put into a hot foot-bath (105° to 110° F.) containing a teaspoonful of mustard, the clothing should be loosened, and quiet secured. In a fully developed attack, first lay the patient in the shade and loosen the clothing, then bathe the head in moderately warm water—about eighty degrees ; not cooler. As soon as possible apply mustard-plasters to both soles, allowing them to remain ten minutes. Let the patient inhale ammonia (hartshorn), or, if that cannot be had, camphor, and put a few drops of *Camphor* on a lump of sugar, and give that, and at the

same time a few (five or six) globules of *Caps.* should be laid on the tongue. As soon as possible, especially if spasms be noticed, get the patient into a full bath of 95° F., letting him rest in the tub for half an hour, after which he should go to bed. *Glon.* or *Bell.*, in water, a teaspoonful every half-hour, will then be the proper medicine till recovery is brought about.

Falling out of the Hair may usually be corrected by cutting the hair short and having it recut at least every month, while the scalp is subjected twice a day to a thorough brushing with a wire brush. Sage-tea may be rubbed into the roots of the hair morning and night, if further treatment be required. If the hair be very dry and inclined to split, a very little bear's grease will correct the trouble, whereas, if the hair be too oily, the best treatment will be to apply, morning and night, Jamaica rum in which a colocynth apple has been allowed to soak for eight days. A whole bottle of rum should be used on one apple; and the preparation should be applied sparingly and only to the roots of the hair. Patent hair-tonics and washes of every kind should be avoided.

Sleeplessness is usually a symptom of some disorder which may be serious, but it often follows excitement, indigestion, worry, or some unusual event. While late suppers have undoubtedly caused many sleepless nights, many others have been occasioned by an empty stomach. A person who has eaten nothing for four hours or more before retiring, and who cannot sleep, will do well to eat a small quantity of some easily digestible food, and if it should occasion distress at the

stomach, that can usually be corrected by lying flat upon the breast; and, in fact, that position is to be advised as an habitual one for sleeping, on several accounts. If the head seem full of blood, a warm foot-bath may induce sleep; have the water about one hundred and five degrees, and deep enough to cover the ankles, and let the feet remain in the bath for thirty minutes, after which retire at once to bed. Or a towel may be wet in cold water and wrung out, after which it may be wrapped closely about one foot and ankle, and outside of it a small blanket may be applied, so as to completely cover the towel. With such a compress on the foot in bed, sleep will often be induced, and the compress may remain in place all night, but in the morning the foot should be bathed in cold water. A quick cold sponge-bath at bedtime is another excellent plan for distributing the blood, and inducing sleep. If fixed ideas or mental states seem to be the sole cause of the difficulty, the disturbing idea can best be expelled by rigidly fixing the mind on some other idea, and if the latter be of a very monotonous character it will often induce sleep. It is in this way that persistent, slow, regular counting, moving the lips in the enumeration, often leads one to the land of dreams.

A medicine that serves well in sleeplessness is *Coff.* where there is great nervous excitement with irritability. The medicine should be given in water, a dose of a teaspoonful every hour. The drinking of strong tea and coffee, especially the latter, often causes the trouble, which will disappear on abandoning these beverages. A more powerful remedy is *Hyos.*, but this

must be given in doses of ten drops of the tincture, in water, every hour. The powerful sleep-producing medicines of old-school practice cannot safely be used, except according to the prescription of a physician.

Neuralgia is often too difficult a disease for home treatment. It consists of pain of a severe cutting or shooting kind, along the course of a nerve or of several nerves, and without inflammation. If in the head—the most common seat is the face—it is often caused by decayed teeth, and sufferers from the disease should always consult a dentist, unless relief follows treatment within a few days. An hereditary predisposition seems to have much to do with inducing neuralgia, for if several persons be exposed to some exciting cause of the disease only a certain number will be thus affected. Exposure to cold, exhaustion, loss of blood, and poor nourishment, are among the causes of the trouble, which is often very obstinate and intractable. Sometimes the cause is very obscure, and the disease may persist for weeks after the cause is removed.

Dry, hot applications at the painful points often do much good. Salt or bran heated and placed in a bag, which should also be heated, is a convenient method of application. A more important matter is the generous use of fats in the food, and this is a thing to which neuralgic patients are apt to object, making it the more probable that lack of fats has been an element in causing the disease. But, however disagreeable, it would be well for such patients to make generous use of fats of almost any kind. Cod-liver oil, olive-oil, butter, cream, and fat meats are all of use, and if they disorder

the stomach, *Puls.*, in water, should be taken, a tablespoonful four times a day.

Among the many medicines a few only can be mentioned here. *Ars.* is frequently of service, especially where the attacks are intermittent, the pains burning, and the patient very irritable. *Bell.* is better if the pains come suddenly, and leave as suddenly. *Acon.* will be wanted if cold were the exciting cause, and *Spig.* is an excellent medicine, particularly if the pain be at small points near the eye or temple. Give the medicine in water, a teaspoonful every hour.

Lumbago and Sciatica are simply neuralgias located respectively at the lower part of the back and in the back part of the thigh and leg. Unless they yield to the plan of treatment given above, a physician should be consulted. *Cimicif.* is, however, a medicine of great value in lumbago, and should be tried by all means. Give it in water as directed above.

Rheumatism is a disease very closely allied to neuralgia, but in which the pains locate in the joints or muscles, and in the acute forms of which fever and inflammation are present to a marked degree. The acute trouble is not a matter for domestic treatment, as the danger of heart complications is too great to be met by inexperience. But the chronic form is often sufficiently troublesome and long lasting. Heat and the oils are excellent external applications. Gently rubbing the affected joint with warm sweet-oil or vaseline may give relief, but if the parts be too sensitive try wrapping in cotton wool kept in place by a layer of oiled silk tied about the limb by tapes. The cotton wool should be

used generously. The Turkish or Russian bath is of wonderful efficacy in some cases, often producing marvellous cures. If neither of these can be obtained, a substitute is at hand in an alcohol lamp, which should be placed under a basin of boiling hot water and both under a cane-seat chair. Let the patient strip off all clothing and sit in the chair over the lamp and water, and let him be covered with blankets brought close together around the neck and extending from there to the floor on all sides, like a circular tent. No orifice should be left for a draught anywhere. In such a bath a patient may remain for from ten to twenty minutes after free perspiration has been established, and at the end of this time he should be sponged off in water of 100° F. and put to bed. In regard to diet meats should be avoided, also tomatoes, onions, garlic, rhubarb, sorrel, water-cresses, coffee, and all alcoholic beverages. The bowels should be induced to move daily by injections of moderately cold water, unless they are regular.

The medicines that are of most service are *Bry.*, when the joints are stiff and painful, and the pains are much worse by any movement, the stools are hard and dry, and there is great thirst. *Rhus tox.* is wanted for a somewhat similar condition where the patient is restless, gets worse while he is quiet, and better from moving the affected parts. *Dulc.* is often useful if the trouble be induced by dampness or a wetting. If the rheumatism be in the neck, and caused by cold wind, *Acon.* will be the best remedy. Give the medicine in water, two teaspoonfuls once every two hours, and be careful about exposure to sudden changes of temperature.

Dyspepsia has been so often called the peculiarly American disease that some effect seems to have been produced, and by the introduction of better methods of cooking and more deliberate habits of eating, the nation has improved in health so far as this particular trouble is concerned. But that other characteristic American malady of nervousness, due to hurry and high-pressure living, is upon us yet, and to this we owe much of the indigestion and consequent bad blood with which we are still afflicted. For dyspepsia is not always a disease of the stomach. It signifies nervous disorder or exhaustion quite as often as it points to local disease of the stomach ; and in many cases a torpid liver, or some other ill-working organ, occasions its symptoms when the stomach is comparatively healthy.

The word dyspepsia signifies difficult or painful digestion, particularly stomach digestion. But digestion is not limited to the stomach, and is carried on only by means of the same nervous power which renders mind and body active, and which cannot vigorously perform any function after being exhausted in the performance of some other function. Excessive brain-work or worry deprives the stomach of the power it needs in order to turn food into the nourishment required by the brain. Excessive mental work or worry is apt also to be associated with bodily inactivity. But without physical activity the needed stimulation of the digestive and circulatory organs is withdrawn, and in this way is brought about a torpidity of the intestines leading to decay of food, the production of gas, the coating of the tongue, and other mucous membranes, and loss of appetite.

These symptoms are followed by an ill-nourished condition of the body, in which it is not fit for the performance of ordinary functions, and which it makes evident by loss of tone, headache, irritability, indisposition to exertion, loss of flesh and color, bad breath, constipation, and the other symptoms which characterize that miserable mortal the confirmed dyspeptic.

The disease is brought about in a number of other ways. Cold and dampness by occasioning a catarrh of the stomach may cause indigestion. The use of high seasoning, by stimulating the secretions of the stomach till their sources are exhausted, results in dyspepsia; and immoderate indulgence in alcoholic liquors, bringing about, as it does, inflammation, and consequent destruction of the lining of the stomach, ruins digestion in time, and with it the health of body and mind generally.

A disease so far-reaching in its consequences, and induced in such varied ways, will necessarily manifest itself by symptoms differing more or less in different cases. It is a trouble requiring careful study by an educated physician, and is not likely to yield quickly, even to the best treatment—one could hardly expect it to be successfully met by domestic measures in all cases. Still, much can be done and many indications met at home, a good many injurious habits can be arrested, and the patient put in the best condition to profit by the efforts of that great healer—nature.

First, then, abandon all use of tobacco, alcoholic liquors of every description, patent-medicines and nostrums, tea, coffee, spices, rich food, and everything known to disagree with the particular stomach under

treatment. Then resolve to eat only when hungry, and if not hungry for a week, eat absolutely nothing for a week. In the words of a physician of much experience and keen observation: "No man ever yet died of starvation without being hungry." But if appetite do not come soon enough of itself, it may be stimulated in a healthy way by starting the circulation. Chop wood, or swing light Indian clubs, or walk *briskly* for a quarter of an hour at a time, once or twice a day, or ride five miles daily in the saddle, and the appetite will be improved. Then determine to have sufficient rest, sleep, and fresh air—taking the latter into the lungs by full, deep inspirations—and insist upon at least a half-hour of rest after each meal; seek agreeable society and cultivate a cheerful disposition, and much will have been already accomplished toward a cure. Next, treat the stomach like a gentleman by giving it several warm baths a day; in other words, drink two glasses of *hot* water half an hour before breakfast, two more half an hour before dinner, and two more half an hour before supper, and none after that time, except to satisfy natural thirst, which should always be respected; be sure that the teeth are in good order, and thoroughly clean; select plain, wholesome, well-cooked, and digestible food, and see that the meats are done through; and be especially careful to masticate the food to the finest degree of comminution—a very important point; drink nothing very cold or very hot, and nothing at all while eating; never overload the stomach; and a cure may be safely predicted in ordinary cases.

Medicines will be of great assistance in meeting

some of the symptoms, and should be given in water, a tablespoonful of which should be taken four times a day. Where there is frontal headache, difficulty of sleeping, discomfort, especially in the early morning and an hour or so after each meal, with constipation and ineffectual urging to stool, use *Nux vom.* Where the patient is worse in the evening, and better out-of-doors, and is especially troubled by fat foods, use *Puls.* Where there is much nausea, loathing of food, a thick, white coating on the tongue, and pimples on the face, use *Ant. crud.* Where the gas on the stomach is very troublesome, noisy, and painful, with constipation, use *Lyc.* Where there is much gas, with sour eructations, oozing of sour fluid from the bowels, and difficult passage of the stools, use *Carbo. veg.* If none of these medicines give relief, use *Sulph.* for four days, and then return to the remedy required by the symptoms.

Liver complaint is a name used to designate a number of disagreeable conditions characterized by more or less disturbance of appetite, digestion, and bowel movements, with pain, heaviness, and, perhaps, swelling under the lower ribs on the right side, headache, irritability, sallowness, and, perhaps, yellowness of the skin. Lack of exercise, overloading the stomach, and use of alcoholic liquors may be mentioned as prominent causes of the trouble, and in dealing with it at home very much the same plan advised for dyspepsia will be helpful.

A very useful medicine where there is dull pain under the right shoulder-blade, constipation, a yellow-coated tongue, and headache is *Chel.* If the headache be pronounced, with pressing toward the forehead,

thirst, stools dry and hard, and aggravation by motion, prefer *Bry.* Where there is sore or watery mouth, with a metallic, sour, or sweetish taste, dark-greenish stools, with griping, use *Merc.* Where there is yellow-coated tongue, foul taste in the mouth, "bilious" diarrhœa, chiefly in the mornings, light-colored and very offensive stools, and frontal headache also in the morning, use *Podo.* Give the medicines in water, a tablespoonful four times a day.

Sea-sickness is due to the constant, unusual, and violent motions of the intestines upon each other, which result from the rocking of a vessel or other conveyance in which a person is riding. Susceptibility to it varies greatly, some persons never experiencing the disease in the wildest storms, while others are afflicted in a carriage, horse-car, or swing, and some even seem to be made sea-sick when no cause can be found outside of their imaginations. Before exposure to an attack, persons should be extremely careful to give their stomachs the best known treatment. For two days before sailing, *Nux vom.* should be taken, in water, four times daily, a tablespoonful. And on going aboard two pellets of *Petrol.* should be taken, dry, on the tongue, once in two hours, and continued for two days or longer if necessary. The first motions of the vessel upon the waves should be sustained lying down as flat as possible, and that position should be assumed at any time when attacked. Eat as usual, and walk much, keep the mind occupied with entertaining matters, and as much as possible off from the subject of sea-sickness.

Dysentery is an inflammatory disease of the bowels, which often begins with a diarrhœa. The signs of the

disease are frequent stools, containing blood, a feeling in the bowel as if more remained after the stool had been evacuated, impelling the patient to strain, and symptoms of fever. A serious attack of this disease is not to be left to domestic treatment; but mild cases will be cured by rest, putting the patient on a milk diet, and giving every hour a teaspoonful from a glass of water containing both *Merc. cor.* and *Colocy.*

Cholera morbus is a disease much more common in summer than at other times, and when severe should be put into the hands of a physician. It is due to the use of unripe or unwholesome fruits and vegetables, and very often to the chilling of the abdomen by retiring, after a warm day, with too little covering to protect from a sudden cool change in the weather occurring during sleep. Ice-water, ice-cream, and the like, taken when heated, also produce it. The disease is characterized by loose, watery stools, cramping pains through the bowels, often by vomiting, and sometimes by marked coldness and symptoms of collapse. The best medicine is usually *Chin. ars.*, a powder of which should be taken four times a day, with an extra powder after each unnatural movement, using each time as much as could be heaped on an old-fashioned three-cent piece. If cramps in the bowels be troublesome, give two or three pellets of *Camp.*, dry, on the tongue, every half-hour. If the stools be watery, and there be sensations of coldness, give *Verat. alb.*, in water, a teaspoonful every half-hour. Very hot wet-cloths laid on the abdomen, covered by dry flannel, and renewed as soon as they cool, will often relieve the pain very quickly.

CHAPTER XV.

DISEASES OF MATURITY.—*Concluded.*

Catarrh is the result of the inflammation of any mucous membrane, but the popular use of the word generally restricts it to the results of inflammation of the lining of the air-passages. This lining membrane may be inflamed throughout a greater or less portion of its extent at one time, and hence we have catarrh of the nose, throat, or lungs separately, or of all of these regions together. If the trouble be limited to the nose and neighboring passages, it is called coryza, or cold in the head, and cold on the chest is a name used when the air-passages in the lungs are affected by catarrh. The disease may also be acute or chronic in its duration, and varies greatly in the severity of its attacks, from such a slight matter as to scarcely attract attention, to a malady of serious proportions, leading to complications that frequently destroy life or make it miserable.

Catarrh usually begins with chilly feelings, perhaps followed by some feverishness, sneezing, dryness of the air-passages, swelling of the lining membrane so as to obstruct the breathing, headache, and lassitude. Following these conditions the membrane begins to dis-

charge a watery fluid, which varies in consistency from time to time according to circumstances, being now almost pure water, soon thick and tenacious matter, and again almost dry, and completely occluding the nose on one or even both sides. The inflammation often extends to the eyes, making them water badly, or to the ears, impairing the hearing, and still more frequently it extends downward to the throat and lungs—if it have not begun there—giving a cough, hoarseness, oppression on the chest, and leading, if not arrested by nature or treatment, to chronic catarrh, quinsy, laryngitis, bronchitis, pneumonia, consumption, and other diseases.

The exciting cause of catarrh is usually exposure to sudden change of temperature, particularly when only a part of the body is so exposed, as in getting the feet wet or sustaining a draught on the back of the neck which reaches no other part of the body. But the exciting cause just mentioned would have little or no power to produce catarrh were it not for predisposing causes in the body of the patient, chief among which stands an inactive, incompetent skin. Of all the vital organs of the body the skin is the most important, and very often it is the most neglected or abused, or both. It should do fully one-half the cleansing of the body, and in an active and healthy condition it is entirely competent to resist changes of temperature, such as are ordinarily experienced, with a promptness and elasticity that will perfectly protect the body from the numerous ills that are usually attributed to cold. But civilized man very rarely can boast of an active and healthy skin. Activity and health depend on natural use, but the

clothing, originally introduced for decency's sake, has first so hampered the skin, and thus eventually led to the use of clothing designed to assist or substitute it in its work, that all the natural task of responding to changes of temperature has been taken from that organ and assigned to dead cotton and wool, and to air-tight houses and coal fires, with, as a result, very imperfect performance of the work of protection, and hence very frequent disaster to the body from the attacks of cold. Fashion has come in to make matters still worse by clothing one part of the body excessively and another part scantily, and for women especially, by prescribing, within brief intervals and regardless of atmospheric conditions, now much and then little or no clothing for important regions of the body.

The very general habit of abusing the skin by wearing next it flannel garments has been alluded to several times in earlier chapters. We send the babies into spasms frequently, by wrapping their delicate skins in wool, and we insure a favorable ground for the attack of pneumonia, bronchitis, and consumption in the adult by encasing our bodies in wool and hiding them behind chest-protectors, with the false idea that thus we are shielding our children and ourselves from the dangers of cold. All friction produces electricity ; clothing cannot be worn without friction, and wool is a non-conductor of electricity. Hence to wear wool next the skin is to confine electricity on the surface of the body, and the effect of electricity so confined is to deaden the skin. Thus, by loading our bodies with clothing, which prevents the natural stimulus of the skin from reaching

it, and which actually deadens the organ, we invite disease and prepare the ground favorably for the reception and development of its seeds. Even if we make habitual use of the cold bath, which can greatly stimulate the skin, we destroy its effect to a large extent by vigorously rubbing off the outer layer of the skin with a coarse towel after our bath, and by thus depriving it of its natural oil; thinking, as we do so, that the glow we secure is an evidence of healthy reaction; while, in truth, it is nature's effort to restore that of which we have robbed the skin, and the temporary absence of which weakens that organ just so much, and makes it a poorer protection to us.

Very erroneous ideas prevail on this extremely commonplace matter of taking cold. Even that term itself is without significance in a majority of the instances in which it is used, because more catarrhs are started by a rise than by a fall in temperature. It is in the springtime, when the world is warming, that coughs, colds, and influenzas prevail most extensively. It is on entering our overheated rooms from the bracing, vital air of the outer world, that the relaxation comes which is so likely to be prolonged till we call it a cold. It is the reduction of tone and pressure caused by a rise of temperature that occasions the unloading of matter on the internal surfaces, which we cannot deaden by clothing, and which are hence both more active and more delicate; and since the skin is not able to do its share in this unloading process, and thus equalize the internal and external circulations, congestion, and eventually inflammation, of the mucous membranes, must result. Inequality

of the circulation of the blood in various parts of the body is the condition precedent to catarrh, and this may be brought about by wet feet, by a draught on a limited portion of the skin, by ill-arranged clothing, or in various other ways ; and it is powerful for harm in exact proportion to the inelasticity of the skin with regard to its function of regulating the external temperature of the body. Other causes of catarrh exist in constitutional and bone diseases, but they need not be considered here.

In treating catarrh it follows from the above paragraphs that the first consideration is prevention, and that to secure this the skin must be put into the best possible condition. This can be accomplished by making use of a sponge-bath every morning, using water between 70° and 80° F., and remaining in the bath for about three minutes. After the bath the use of a towel will be by no means absolutely necessary, but there will be no objection to drying the skin if it be done with little or no friction. Then, before dressing, ten minutes' active exercise should be taken in a room which is, and all the preceding night has been, freely open to the outer air. In such a room jump about actively, throwing all the limbs in every direction, and after ten minutes spent in this way, with the accompaniment of deep inspirations taken through the nose, dress. Put on sufficient clothing to secure a feeling of comfort in an indoor temperature of from 65° to 72° F.—never made higher by artificial means—but do not allow flannel next the skin. There is no objection to wool as an article of dress if it be worn over linen, or at worst cotton,

but these materials should always be used for the innermost garments. A person who has been long accustomed to flannel next the skin must be careful in introducing a change for the better, leaving off the flannel first in warm weather, and making regular use of cold baths till the skin becomes thoroughly active and responsive to stimuli. This plan of toning the skin by exposing it to cold water and fresh air, and making it react to the cold and not to friction, will do more to eradicate catarrh than all the medicine, all the clothes, and all the hot-air furnaces that can be used. But if catarrh makes its attack there will then be occasion to use

Medicines, and of these the best are: *Nux vom.* and *Merc.*, mixed together in the same glass of water and taken in teaspoonful doses every two hours, if there be headache, alternate dryness, and running of the nose, the discharge being thin and watery, the bowels constipated. Use *Puls.* in the same way if the discharge be thick and greenish, and the conditions improved in the open air. If the trouble were caused by dampness, *Dulc.* is usually the best remedy. Use it in the same way. In the very earliest stage of a cold when chilly feelings warn one that catarrh is approaching, the best drug is *Camph.*, a few pellets of which may be laid dry on the tongue every half-hour till five or six doses have been taken, after which it will be of little service. Should the cold occasion

Hoarseness, or loss of voice, *Caust.* should be taken in water, a teaspoonful every two hours, or if there be a persistent tickling in the throat, use *Phos.* in the same way, whether the tickling occasion a cough or not. *Bell.*

should be used in the same way if *Phos.* do not relieve. In this condition, with sore throat, a cold compress will do good service. Wring out of cold water a piece of flannel long enough to go around the neck, and two inches wide after folding once. Wrap it around the throat and cover it with a similar piece of dry flannel somewhat wider. Leave the compress on over night, and in the morning bathe the neck thoroughly with cold water. If the tonsils and glands of the neck should swell, treat as described under Quinsy in an earlier chapter (see Index).

Cough, if dry and painful through the chest, is usually relieved by *Bry.*, if taken in water, a teaspoonful at a dose every hour. If the pain extend down the middle of the chest and into the abdomen, *Bell.* will relieve, taken in the same way. An irritating cough, with pains more toward the sides of the chest, and with headache and constipation, requires similar doses of *Nux vom.* If occasioned by persistent tickling in the throat, with oppression upon the chest, use *Phos.* If, however, the cough be loose, with greenish expectoration, worse morning and evening, and better in the open air, use *Puls.* For a painful cough, with tough, stringy expectoration very difficult to expel, use *Kali bichrom.* For a loose, rattling cough, where there seems to be abundant mucus and yet nothing can be raised, use *Ant. tart.* And if in a similar condition there be much nausea and the cough even induce vomiting, use *Ipec.* The selected medicine should be taken in water, a teaspoonful every hour, or a tablespoonful four times a day.

Bronchitis is an inflammation of the larger air-

tubes of the lungs which often succeeds to a catarrh of the upper air-passages. There is usually fever with it in the beginning, and always cough, dry at first, but with expectoration, which may even be blood-streaked, later. As the inflammation extends to the finer tubes the danger increases, and with infants and the aged the disease is always serious. In the early fever *Acon.* should be used, in water, a teaspoonful every hour. The remedies mentioned for cough apply also to bronchitis, and if improvement do not speedily set in, a physician should be consulted.

Pneumonia is an inflammation of the lung itself, and is a disease of the first importance, and not within the scope of domestic medicine. In children one form of it may succeed bronchitis. It usually begins with a marked chill, followed by high fever, with pain in the chest and cough. Put the case into the hands of a physician without delay.

Pleurisy is an inflammation of the covering of the lung, and is, like pneumonia, a disease not suited for home treatment. It, too, begins with a chill, followed by fever; but is not always associated with cough. The pain is of a shooting, cutting character, very severe, and is made worse by breathing, coughing, or moving. A poultice or foment, applied over the seat of pain, will do no harm; but further treatment should be directed by a physician.

Asthma is a far less dangerous disease than those just mentioned; but still it is not suitable for home treatment, because of the difficulty of managing it, and the large number of serious conditions upon which it

may depend. It is a spasmodic disorder—a fact which shows it to be an affection of the nerves—and commonly makes its attacks in the middle of the night, rousing the patient in an agonizing struggle for breath. The sufferer sits up in bed, or stands grasping something firm, while shoulders, arms, and back are vigorously exerted in the effort to fill the lungs, the breath, in passing the throat, producing a wheezing which is very characteristic of the disease.

The trouble may depend upon the suppression of a skin disease, upon disease of the heart or kidneys, or upon bronchitis or other disorders; and the attacks are often excited by indigestion or improper treatment of the stomach. The diseases lying behind the asthma must, of course, be cured before the latter can be fully removed; but during an attack means must be adopted that will relieve the distress of the patient, and for this purpose a foment to the upper part of the spine, as described at page 131, will often be efficacious. Of course plenty of fresh air should be admitted to the room, and it will be well to paint the whole front of the neck and chest with tincture of iodine mixed with alcohol in equal parts. Blotting-paper previously soaked in a strong solution of saltpetre, and dried, if burned on a saucer so that the patient can inhale the fumes, often gives relief. The imported “Fruneau’s papers,” used in the same way, are better, but are not easy to obtain. They may always be had of the publisher of this work, however. The best medicines are *Ars.*, *Bell.*, *Nux vom.*, and *Sulph.* They may be used in water, giving a teaspoonful every fifteen minutes, and trying them for

four or five doses each, in the order named, until relief is obtained. Further treatment must be directed by a physician.

Hay-fever is a form of asthma depending upon the pollen of certain plants, combined with a peculiar susceptibility in the afflicted individual. Different persons trace their attacks to different flowers, and the treatment of the difficulty, except by removal to a climate in which the exciting cause does not exist, has not been brilliantly successful in the past. Patient individual study of cases has, however, resulted in many cures, and there is no reason for discouragement regarding the ultimate success of medicine in meeting all cases. The treatment advised above for asthma is worth trying in this complaint, and the patient should endeavor to keep both stomach and skin in healthy condition and always avoid ice-water.

Malaria (or bad air) is a word which the late lamented Mr. Beecher is reported to have said the doctors use to conceal their ignorance. It is a term very frequently heard nowadays, and signifies at times the poisonous germs in, or supposed to be in, the air, and at other times the diseases or bad effects which are, or are supposed to be, the consequences of the entrance of these germs into the system. But as the germ theory of disease (which teaches that many diseases are caused by particular germs which float in the atmosphere, and when taken into the system produce each its own peculiar malady) is made to account for more and more of the ills to which flesh is heir, the word "malaria" which might in one sense include all these disease-breeding germs, is restricted to

those which either produce fevers having periodicity as their most marked peculiarity, or to that condition of indescribable, vague discomfort and ill-feeling which, while a long way from health, is yet not properly described by the name of any particular disease. The test of malaria in the system is thought by many, both among physicians and the laity, to lie in its curability, or apparent curability, by large doses of quinine. As Dr. Jones, of Taunton, Mass., has neatly put it, there seems to be a widely extended acceptance of the syllogism, "Quinine cures malaria, quinine cured this case, therefore this case was one of malaria," which syllogism is nevertheless fallacious. Neither is periodicity, the other and possibly still more widely accepted test, a certain evidence of malaria, for many conditions of disease in the body, both palpable and obscure, are manifested with a marked, persistent, and regular period, while yet malaria cannot be admitted as in any sense a cause of the conditions, which can often be fully accounted for without lugging in this fetich of modern medicine. Just what malaria is, no one pretends to know perfectly, although something is known about it. It is thought by some to be the pollen of a flower, and a physician in the West found a flower which he carried to a non-malarious district and produced malarial fever where it had not been known before. But malaria is known where this particular flower is not found, just as hay-fever makes its attack when all the hay is in barns and miles away from the patient. Then it is thought to belong to marshes and lowlands, but it is known as high as 11,000 feet above the sea, on mountain sides, near

none but rapidly flowing water. Cold has been charged with the production of all malarial attacks, but the trouble is unknown in very high latitudes. Bad drainage, and stagnant water are charged with the production of malaria, but high table-lands and bare rocks afford the unwelcome guest an abiding-place. Electricity and magnetism are said to occasion the symptoms of malaria, but people suffer from them to leeward of some marshes, and are free from them to windward of the same marshes. The probability is that there are several totally different causes for malarial disorders, and that many cases of disease called malarial are really produced without any malarial agency whatever. Consumption has often been treated as malaria. One case of cancer of the rectum was treated as malaria for seven years by different physicians before the real difficulty was detected; in another case a tape-worm was treated as malaria for two years, and instances similar to those just mentioned are within the personal knowledge of almost every experienced physician.

But there undoubtedly is such a thing as marsh malaria, and such a thing as malaria from newly turned ground, and such a thing as malaria from old, buried, but not drained creek and brook bottoms, and malaria from broken sewers, damp cellars, and the like. And there are undoubtedly serious diseases—too serious for home treatment—which result from malaria, and which carry many strong men and women out of the world. But it may be laid down as a general rule, applicable to all but the most deadly districts and the most trying conditions, that malaria alone will not produce disease.

It must find a favorable soil in which to grow and flourish before disease can be fastened upon any victim. The man or woman, then, who will keep his body in a vigorous and healthy condition by careful attention to all the laws of health, may be reasonably sure of freedom from malarial diseases, unless compelled to expose him or herself in those parts of the world where no human body seems able to resist the insidious poison.

With regard to protection from malaria, it may be said that good drainage and sewerage about a house, with attention to ventilation of the cellar; the use of elevated rooms for sleeping, and respirators, both in and out of doors at malarial seasons; a barrier of trees and shrubs, both numerous, thick, and high, between the home and the malaria-breeding region; and the maintenance of a permanent covering of clean water over all malarious ground that cannot be perfectly drained—these are the most practical suggestions that have as yet been made, and promise some help in the solution of this troublesome problem.

The Malarial Diseases, such as bilious fever, remittent fever, intermittent fever, fever and ague, are manifestly not suitable subjects for a work of this character, as they must one and all be placed in the hands of the physician. This is the place, however, to utter an earnest warning against the reckless, unadvised use of *Quinine* in the frightful doses that are getting to be more and more common as a domestic remedy in malarious regions. Young people will often boast to each other of the number of grains of quinine that they can swallow, and joke about the poisonous effects that they notice in

themselves. Ringing in the ears after a dose of quinine is a symptom of congestion of the brain due to poisoning. The poison arrests for the time the changes of tissue in the body upon which life itself depends. Thousands have been killed, directly or indirectly, by over-dosing with quinine, and other thousands have seriously injured both mind and body in the same way. The medicine is one of great value, but should never be used save by a physician, and never given to a patient unless his body be in a state of relaxation, such as may be induced by unnatural, loose bowel-movements, by profuse sweating or vomiting, or in women by the monthly sickness.

Typhoid Fever is a serious disease, requiring professional treatment, but one which should be mentioned in this connection. It is now considered to be always due to germs transmitted from a previous case, directly or indirectly ; and the poisonous germs are believed to be given off from the patient solely in the passages from the bowels. It follows, then, that the stools of a typhoid-fever patient should always be disinfected, that they should not be put into the common cesspool or privy-vault, but should be buried in a place by themselves, and fully two hundred feet from any well, cistern, or stream of water. The latter should be avoided, because cows may drink of the water, and may thus contaminate their own milk, making it capable of spreading the disease. To disinfect the stools of a typhoid patient, let them be passed into a vessel containing a solution of pure carbolic acid in thirty parts of water. Pour more of the solution over the stool the instant it

is passed, have it buried as already directed, wash the vessel in the same solution, and leave some of it constantly in the vessel. Clothing or bedding in the least soiled by the passages must be washed thoroughly in boiling hot water, containing one part in one hundred of carbolic acid.

Erysipelas is a constitutional disease, showing itself by an inflammation of the skin of greater or less depth. It is very commonly associated with stomach and bowel disorders, and often follows wounds. It begins by chilliness, and some fever, perhaps vomiting, and frequently headache. Then some portion of the skin becomes red, hot, swollen, itching, and perhaps at this point little blisters appear, which may spread and run together. Sometimes the swelling, if in the face, is sufficient to quite close the eyes, and the itching is often almost unbearable. Except in its mildest forms the disease is not a suitable one for home treatment, and if it do not improve after a few doses of *Bell.*, given in water, a teaspoonful every hour, a physician should be called. The itching may be allayed by dusting powdered starch over the inflamed surface, which should be kept as dry as possible.

Itching of the skin, if it do not yield to thorough bathing, and do not depend upon any known or apparent cause, may often be relieved by rubbing the irritated region, at bedtime, with a solution composed of one drachm of the oil of lavender in two ounces of alcohol. Internal remedies are often of service, and the best are *Ars.*, where there is burning and dryness of the skin; *Sulph.*, where there is soreness and burning

after scratching; and *Sil.*, where there is a sensation as if bugs were crawling over the surface. These medicines should be taken in water, a tablespoonful two or three times a day.

Carbuncle is a constitutional disease, which resembles a boil in several points, but is a much more serious matter, showing itself by an inflammation of the skin and deeper structures. Boils are short-lived affairs, but are likely to come in crops, one after another, while carbuncles usually come singly, but may persist for a long time. Boils may come either from a debilitated state of the system or from too high living, while carbuncles are occasioned by a low or debilitated state due to exhausting diseases, poor food, or unhealthy surroundings. Boils are elevated, and discharge at a single point; carbuncles are broad and flat, open usually at several points or into the deeper flesh under the skin. Boils come at almost any part of the body, while carbuncles usually are seated on the back, where the skin receives the least nourishment and renewal. A carbuncle is quite capable of destroying life, and requires constitutional treatment, which should be administered by a physician; but something can be done at home.

For the early stages **a poultice** should be applied. This may be made by sprinkling linseed-meal into boiling water, which should be constantly stirred until the mixture is of the consistency of mush. This mush should be spread, an inch or more thick, on a cloth or napkin, folded to a size a little larger than the place to be covered. A flannel cloth would be better than a napkin, but whatever is used should be folded often enough

to keep in the heat as long as possible. Over the face of the linseed mush should be spread a single thickness of cheese-cloth, or other thin material, to prevent the mush from adhering to the flesh. The poultice is now ready, and should be applied as hot as it can possibly be borne, and as soon as one poultice cools another should be ready, hot, to take its place.

The best medicines for carbuncle are *Ars.* and *Lach.*, and these may be mixed together in a glass two-thirds full of water, of which a tablespoonful may be given four times a day. In addition to medicines, however, the patient should be brought into the best possible general condition, by abundance of wholesome, nourishing food, fresh air, rest, and exercise, and should abstain from wine, beer, liquors, and tobacco. Such a plan of treatment should be directed by a physician.

Corns are the product of intermittent friction and pressure. Ninety-nine times in every hundred, tight shoes are responsible for the friction and pressure; but shoes that are too loose may also induce the painful visitors to take up their residence on the toes. The variety known as soft corns differs simply in growing between the toes, where heat and moisture tend to deaden the thickened skin, and to favor effusion under it, often resulting in a serious sore. No attempt at curing corns can result successfully unless the patient will resolve to wear a shoe that is easy, that fits the foot, and that has a heel of moderate height and abundant breadth. This essential secured, the corns can assuredly be removed by treatment.

The treatment will consist, first, in soaking the feet, for thirty minutes, in water of 105° F. At the end of this time the corns may be removed by a pen-knife, or even by the finger-nail. Get out all the hardened, dense skin, and if the foot be still sore, bathe it in arnica tincture diluted with four parts of water. Then apply a corn-plaster over each corn, using the felt plasters, with a hole in the centre and a non-medicinal adhesive gum on one side. Wet this side, being careful to keep the felt dry, and press it against the foot so that the centre of the hole comes exactly over the point that has been most painful. Press the plaster firmly for a moment, draw on the stocking with great care, so as not to disturb the plaster, and usually no further trouble will be experienced. Soft corns should be exposed to the air as much as possible, by separating the toes with felt or soft cloth. If corns persist in returning, take, four times a day, *Ant. crud.*, in water, a tablespoonful at a dose.

Bunions are inflammations of a peculiar structure, located near the ball of the great toe, and are caused, very much as corns are, by friction and pressure, and also by the displacement of the great toe by too short or too narrow-toed shoes. The treatment will require properly fitting shoes, and the removal of pressure by felt, gummed and fitted about the sensitive point, exactly like a corn-plaster with a larger hole. Tincture of iodine may be painted on the swollen part, either full strength, or, better, reduced one-half with alcohol. If the pain and redness be considerable when the shoe is off, take a few teaspoonful doses of a solution of *Acon.*

in water, every half-hour. If surgical treatment be needed, as often happens, it should be applied by the physician.

Ingrowing Nails are also to be charged to badly fitting shoes and boots. They can usually be managed by trimming the corners of the nail, leaving the protecting margin of the nail rather long, but not as long as the toe beneath, and in the middle of this protecting edge or margin of the nail, cutting a notch like the letter V, making the point of the V reach to the junction of the flesh beneath the nail, with that appendage. Of course, the nail should be softened by long soaking in warm water before any attempt is made to cut it.

PART IV.

FROM THE CLIMAX TO OLD AGE.

CHAPTER XVI.

THE CHANGE OF LIFE.

Menstruation usually ceases about thirty years after its commencement. In this climate the cessation occurs at about the forty-fifth year of a woman's life, but it is by no means a matter to which a definite date can be set, nor can a woman feel any assurance that her periods are altogether things of the past until she can look back upon a full year unbroken by menstruation; and even then she may be surprised by more than one unexpected flow. The Climax, or Change of Life, as the time of menstrual cessation is called, is manifested by irregular, interrupted periods, and usually by other disturbances which may continue during several years, and it has always been regarded as one of the most critical periods of a woman's life, one in which she is peculiarly liable to serious disease. It is true some women menstruate regularly up to the last, when, without other

symptoms, the periods stop and the change is complete. But in the vast majority of cases both the time and character of the flow are altered, irregular, and unreliable, and various disturbances occur all through the system, sufficient to make it evident that nature is carrying the body through a crisis.

In view of these various symptoms it would be well for women to bear in mind that "the change of life" may not account for all the disturbances experienced during a decade. Many women have allowed serious diseases to become fastened upon them simply by charging to "the change" symptoms premonitory of such diseases, which, had they occurred at another time, would have sent them to their physician. It needs a careful professional examination at times to decide the question as between disease and the climax, and of course the earlier a disease is detected, as a rule, the easier it may be warded off or cured. For example, it is exactly at this time of life that cancer is most apt to begin its insidious work, and no disease demands early recognition as a precedent of cure more emphatically than this one.

Menstrual Irregularities at this time of life may manifest themselves in several ways. The periods may be scanty or profuse, but they are apt to come at longer intervals or to skip a month or two altogether. Yet it is not uncommon for a few periods to come abnormally close together, especially at the commencement of the changes that mark this epoch. If the periods be profuse they may assume the character of hemorrhages, or "flooding," as it is called, and in some

instances astonishing quantities of blood may be lost. A case in which a woman bled sufficiently to saturate her clothing, the bedclothes and mattress, and to make a considerable pool of blood on the floor under the bed before she was discovered, and which, nevertheless, recovered, was known to the author. In case such a hemorrhage should occur, proceed as directed in the treatment of Abortion, page 206.

On the other hand, the cessation of the flow is frequently associated with such symptoms as lead to the suspicion of pregnancy. At this time fat is usually deposited about the body to a greater extent than in earlier life, and the abdomen and breasts are favorite locations for its appearance. Abdominal dropsy is another condition very likely to begin at this time, and a windy distention of the abdomen is another by no means rare affection, which closely simulates enlargement of the womb. In all these conditions the womb may be thought by its owner to be enlarging, while in reality, if the cessation of the monthly flow be due to the change of life, it may be growing smaller from the fact that its office is a thing of the past. The enlargement of the abdomen may, however, be due to the growth of a tumor from some of its contained organs, and this condition may simulate pregnancy even more closely than those just mentioned. In fact, it is at times one of the most difficult questions that can be proposed even to the expert medical man: Is the condition presented by this patient due to pregnancy or to some other cause? Most amusing incidents could be related of the preparations that have been made to receive an infant into the world

before any infant had taken it into his head to make his début in the interest of the particular would-be mother concerned. And many heartaches have been occasioned, many disappointments experienced, many plans overthrown, by too hastily and ill-advisedly concluding that because the menses had ceased, the breasts had become irritable and fuller, and the abdomen had enlarged, it was probable that at such a time in the future a little one would come to bring joy to the hearts of expectant parents.

Sometimes, after a few months of absent periods, a rather profuse flow with clots of blood will be discharged, and will be thought to be a miscarriage or abortion. Such cases should be treated as described in the article on Abortion, page 206, and, of course, all that escapes from the womb must be preserved for expert examination, if the question is to be positively decided as to whether a pregnancy did exist or not. Menstruation consists of a casting off of the inner lining of the womb, as well as of a flow of blood from that organ, and the various elements which enter into the function are not likely to die out at exactly the same rate and in exactly the same time. Blood may accumulate in the womb without the power necessary to reorganize the lining of that organ, and a profuse hemorrhage may result, or the lining membrane may be cast off without the existence of sufficient energy to produce a flow for a month or two, till an accumulation of débris in the womb arouses the expulsive forces necessary to cast it out, giving rise to a profuse flow with clots, and in this way counterfeiting an abortion.

The relief to the system resulting from such a flow of blood is often of the greatest benefit, and does away in many cases with a number of symptoms yet to be described as belonging to this period. The system acquires its habits, to which it clings with the greatest tenacity. The body, which has been manufacturing the blood necessary to maintain the menstrual flow for thirty years, cannot reduce the production all at once to the requirements of the system after the suspension of this function. A surplus of blood in the body, manifesting itself by headaches, dizziness, flushes, congestions, piles, irritability, and in other ways, is corrected by such outflows as have just been described, and when relief does not come from a delayed menstruation or hemorrhage from the womb, it may result from the bleeding of piles, or from other discharges of blood which are not to be looked upon as disasters, but rather as benefits. Still, the question should be submitted to a physician whether such a flow of blood is a drain upon, or a protection to, the patient, for it may easily be either, and the loss of a considerable quantity of blood is not a matter to be lightly treated or neglected.

There can be no doubt of the serious harm done to many patients both at this and at other periods of life, through efforts to suppress the discharges by which nature is endeavoring to protect the body while accommodating it to new conditions, and equalizing the circulation under new circumstances. A pile is not simply a small and painful lump of flesh, which can be taken away without other consequence than the removal of a nuisance; it is a sort of safety-valve established by nat-

ure to meet unnatural obstructions in the circulation. It is commonly an established fact for a long time before it is noticed, and as such has been taken into nature's account, and plans and allowance have been made for it in regulating the blood-supply and circulation. This being the case, such a vent and safety-valve cannot be removed without disarranging the whole plan of circulation—a thing which may result in very serious consequences. And the older a person is, the more reluctant will nature be to have her plans for the conduct of the body disarranged. Nor can a worse time for such interferences be found than at the climaxes, of which the change of life is the chief. People are too prone to choose what seems the quickest way of getting rid of pains and aches, forgetting that what they would have cured in a day may be the result of a habit of long standing, which it will take time to remove, but which must be removed if a real cure is to be accomplished. This thought, if rightly conceived, would do away with a very large part of the modern extremely injurious use of morphine and other opiates, and it is a thought which elderly persons should especially consider.

Itching of the privates and constipation are very likely to be specially troublesome at the change of life; but for the treatment of those difficulties, as for piles and hemorrhages, refer to the subjects in the Index, and consult other parts of this volume.

Hairs upon the face sometimes annoy women at this age. There seems to be no way of safely and efficiently removing the hairs except by pulling them

out, hair by hair, with properly constructed forceps. Shaving stimulates the growth, although it is, of course, efficient, if repeated with sufficient frequency. The best advice is, undoubtedly, leave the hairs alone, and be thankful that no worse affliction is upon you.

Excessive fat has been mentioned as one of the symptoms of this period likely to suggest pregnancy to the woman whose monthly flow is ceasing. Obesity is certainly not restricted to this period, or to women, but it is commonly regarded as an undesirable state of affairs, and many are the efforts made to reduce flesh by those who think they have a superabundance, and numerous and serious are the injuries inflicted upon themselves by persons who are not satisfied to be what nature has designed.

While superfluous flesh is an evidence of ill-health or wrong living in many cases, in many others it is nothing of the sort. In fact, many a person who weighs two hundred pounds or more, has no flesh that can properly be called superfluous, or with which he could part while retaining perfect health. Some of the most active, energetic, and healthy men and women are rotund and of full habit, even obese, and such persons cannot do better than content themselves with corpulency and good health. Women are more likely to become burdened with fat than are men, and this is charged to various causes, among which are the more inactive life they lead, and, when it shows itself at the change of life, the cessation of the activity of the sexual organs. The change of life must come, but inactivity can be avoided by most healthy persons. Water is a great fattener, by

means of its action in dissolving food and facilitating its transfer to the various organs where repairs are, or may be needed. Strong liquor and beer are also prone to increase the weight, if used in excess; but they at the same time cause such a degeneration of tissue that the added flesh is both unhealthy itself and a soil admirably suited for the growth and development of disease-breeding germs. Food of all kinds can be turned into fat by the body, under certain circumstances, but the sugars, starches, fats, and oils are manifestly the most ready producers of obesity. The articles less likely to be readily turned into fat are lean meats, eggs, fish (except such rich kinds as salmon), poultry, game, cheese, fresh fruits and vegetables, and toast. Skimmed milk has, of course, been deprived of much fattening material contained in cream.

It follows, then, from the above, that the person who would reduce his flesh should increase the amount of his active exercise, reduce his sleep, and his supply of drinking water, use as little as possible of fat, butter, oil, sugar, and the other articles mentioned as being fat-producers, and eat with great moderation of such foods, mentioned above, as have a less marked tendency to become fat after they enter the body. The grand troubles will be, first, the difficulty of rigidly adhering to such an abstemious plan of living for a time long enough to produce good results, and, second, the danger of inducing disease by thus interfering with the course of nature. The use of Russian baths once a week, as an aid in reducing flesh, may be advised in some cases. Of course, the opposite plan, of more sleep, less exercise, more water

and fat-producing foods, larger quantities and more frequent supplies of all kinds of food is to be advised when it is the desire to increase flesh. But most of us are acquainted with those who seem to be unaffected in flesh by any plan of eating they may adopt.

Dropsy has been mentioned as another condition which may cause such an enlargement of the abdomen as would lead to a suspicion of pregnancy at the cessation of the monthly sickness. This disease is caused by a stagnation of the blood in the veins, permitting the watery parts of that fluid to escape into the tissues, and it is favored by certain diseases that make the blood more watery than is natural or healthy. Dropsy, then, is dependent upon several causes, and that form of it which begins in the abdomen is usually due to an obstruction in the liver, toward which most of the veins of the abdomen take their course. Other forms of dropsy depend upon disease of the heart and kidneys, and others again upon local inflammations, resulting in effusions into the various cavities of the body. Several of the diseases which precede and produce dropsy are themselves caused by the abuse of alcoholic liquors. Dropsy is a disease of slow progress, but is altogether too complicated and serious for home treatment.

Flatulency, or wind in the bowels—another condition already mentioned as capable of producing such enlargement of the abdomen as to suggest pregnancy—has been considered in connection with dyspepsia. It is caused by certain kinds of food, notably by baked apples, apple-sauce, baked beans, milk-toast, peas, and coffee; by catarrh of the bowels, and by sluggish or ob-

structed circulation. Some of the best medicines have been mentioned under Dyspepsia, page 225, but to these may be added *Colocy.* and *Dioscor.*, which are wanted for flatulency associated with much pain. *Colocy.* is better if the pains be relieved by doubling up the body, and pressing upon the stomach; while *Dioscor.* should be selected if relief be obtained by straightening out the limbs, standing, or walking about. Give the medicine in water, a teaspoonful every hour. Much relief is often to be secured by applying hot wet cloths to the abdomen, covered by dry flannel, and renewed as often as they cool. A measure of relief is found, too, in passing a soft, black rubber tube, not over three-eighths of an inch in diameter, and well oiled outside, up into the bowel several inches. It affords the gas a means of escape; but if the bowels be filled with solid matters they will prevent the tube from entering, or else will stop up the tube itself. In such cases an injection must be given to clear the bowels before passing the tube. Use a pint or more of cool water in which soap has been dissolved. The articles of food mentioned as producers of gas in the bowels must be avoided if the trouble is to be cured, and, as a preventive measure, pepsine may be used with each meal. Perhaps the best preparation of pepsine is Fairchild's Essence, which is to be taken in teaspoonful doses. There are many other excellent pepsine preparations, and many worthless ones, in market.

But the most serious troubles that are to be traced directly to the cessation of the monthly flow are those which are due to the unequalized circulation resulting from the suppression of an habitual discharge

of blood. These are headache, vertigo, flushes of heat, congestion of different organs, nose-bleed, palpitation, and certain mental states, especially, irritability and melancholy. Some of these conditions have already been considered in this or other chapters (see Index), and nothing more need be added here to what has already been said.

Vertigo or dizziness may depend upon either too much or too little blood in the brain. When too little blood in the brain is the cause, the person feels faint, and should be treated as described in the article on Fainting, page 152. This difficulty may result from flooding. But when vertigo is due to too much blood in the head we have associated with it throbbing of the vessels in the neck, ringing in the ears, or deafness, and perhaps sparks before the eyes, or even blindness temporarily. Headache is pretty sure to be present, and the head may be hot while the rest of the body is cold. A tendency to stagger, or even to fall, is noticed by the patient, but the staggering may not be perceptible to others. In fact, this sense of vertigo and falling may come over the patient while lying in bed.

In treating such a case prevention is the first consideration. The patient should walk out of doors daily, but should not exert herself much with other forms of activity, the idea being to draw the blood to the feet and legs by using them. The bowels should be moved by the plans suggested in the article on Constipation, page 198, if they be not naturally open. Care should be taken not to disorder the stomach, and the lungs should be abundantly provided with fresh air. During an attack the patient should be put to bed, with the head

raised quite high on pillows, and a dose of *Gelsem.* should be given, five drops of the tincture being mixed with a tablespoonful of hot water and taken at once. The feet should be placed in hot water (at 110° F.) containing a teaspoonful of ground mustard, and cold wet applications should be made to the head, and a physician called who will direct further treatment.

Flushes of heat are very common with women at this period, and are best treated by *Lach.* or *Sang.* Give the former if the trouble be worse after sleeping and associated with nervous disorders and pain about the heart. The latter should be preferred if there be much nausea and stomach disorder, with whites. Give either medicine in water, a tablespoonful four times a day.

Palpitation of the heart at this time of life may depend upon nervous conditions as at other periods, or it may be a result of windy distention of the bowels. It may also be produced in other ways, and while it need not occasion alarm in and of itself, the case should be submitted to a physician, who may determine what is the direct cause of the difficulty. Excessive tea-drinking is a cause of palpitation, and the use of tobacco is one of the most common occasions of the trouble in men. The difficulty may come about in so many ways, and so many medicines are required in different conditions, that it will be advisable to consult a physician with regard to the treatment. And, in fact, this whole period known as the change of life is so full of variety in its medical aspects that professional attention will be required in most cases, if the best treatment is to be secured for the patient.

CHAPTER XVII.

THE DECLINE OF LIFE.

No experience quite similar to the "change of life" in women forms any part of man's life history. Yet there occurs at about the sixty-third year of his age a period known as the "grand climax," which may be said to correspond to the critical age of the woman. It is an age at which various disturbances are likely to occur, and one at which serious disease seems to find the body more open to its attacks, and less able to successfully resist them. This grand climax once successfully passed; the man has an excellent prospect of living on to old age, with gradually declining powers, it is true, but in health, comfort, and usefulness, if he wisely adapt himself to his changed circumstances and govern himself by correct hygienic rules. Nor is this an easy thing for all men to do. He who has accustomed himself to a life of activity, who loves work and takes pride in his conquests, be they victories in the realm of mind or matter, over men or over the elements, dislikes to think that he is losing his grip, that his strength is not equal to his former tasks, or his endurance capable of withstanding the former tests. Yet if one will think of it, old age offers to just such men a chance to show their mettle in resisting the temptation to appear younger

and more vigorous than they are. "He that ruleth his spirit is greater than he that taketh a city," and that is no small victory over self which some men achieve when, by reducing the demands upon and increasing the care of their bodies, they admit that advancing age is telling upon them. But resist it as we may, old age will make itself felt sooner or later, and the wise course is to yield to its sway as gracefully as we can.

The troubles peculiar to old age may be traced one and all to sluggishness. The sands of life are running low and slow. The blood is thicker and lags behind, and in consequence every function is performed with less vigor and activity. The veins are full of débris, which settles and clogs the wheels, because it is not washed onward to the dumping-grounds with the former velocity. New supplies are furnished more tardily by the digestive organs, and carried more slowly through the arteries, and for this reason food should be of the most nourishing and easily digested sorts, the fluid foods predominating. The skin, the kidneys, and the bowels have less to cast off from the body, and join with the other organs in the demand for less work in a given time. The problem of health, then, requires the adaptation of the habits to the changed conditions, and the distinguishing of the symptoms which are to be traced to advancing years from those that are due to diseases present or approaching.

Among the things advisable for the aged, but undesirable for younger persons, is the use of flannel underclothing. The objections to this material for those who have or should have active skins, were dwelt upon

at some length in the earlier pages of the present volume; but we all deaden our skins more or less by the clothing we must wear, whatever its composition, and when age comes, the skin, which has been subjected to unnatural conditions throughout life, must be assisted in its work, though it be true that this assistance weakens it. When the skin is able to do its part, encourage it to do so—it will perform its task better than any substitute that can be found if left unhampered—but when the skin confesses weakness and inability to do its full duty, assist it. There are more important objects in life than the preservation of the skin in its highest efficiency.

No better material can be found for the underclothing of aged persons than that advertised as the “Sanitary Woollen System,” of Dr. Jaeger. While these garments can never fulfil all that is claimed for them, their quality is undoubtedly excellent, and they can be recommended where articles of that class are desirable.

With regard to the bowels, an aged person should content himself with a movement once in two or even three days. With the general sluggishness of the whole system and the reduced demands upon the digestive organs that come at this time of life, fewer movements of the bowels will answer the needs of the system and may be considered the healthy standard. But do not allow a serious constipation to become seated, as that may result in considerable trouble.

Dribbling of urine is one of the annoyances of old age, especially in men, although frequent enough

with women. It may depend upon paralysis, or upon obstructions along the urinary canal, such as tumors or enlarged glands ; but in any case it must be treated by a competent and careful physician. It is well to bear in mind, however, that dribbling of the urine usually signifies that the bladder is as full as it can hold, and that the surplus urine is escaping in consequence. Enlargement of the prostate, as the gland at the neck of the bladder in men is named, is a frequent cause of dribbling urine, and this enlargement has been called the common heritage of old men. It seems to result from the general venous stagnation which has been mentioned as a characteristic of this period of life.

Stone and Gravel are names of different grades of the same trouble, viz., the inability of the urine to hold in solution all the substances which the kidneys cast off from the body. Several of the elements contained in the urine are capable of forming crystals, and if they be not perfectly dissolved they will make either a sediment, which is deposited after the urine has escaped from the body ; or gravel, which is a coarser sediment deposited inside of the body, in the kidneys or bladder ; or a stone, which is a consolidated mass of gravel, formed by a gradual growth of solid material deposited from the urine either in the kidneys or bladder. Gravel is made up of different crystals in different persons, or in the same person at different times, while a stone is usually composed of various substances arranged in layers. Some of the materials of which gravel and stones are made are apt to appear in young manhood and middle life, while others are more

apt to be deposited by old men, and probably old men present the largest number of cases of this sort. A stone always is a matter of growth, and indicates that the conditions which produced it were active for some time.

Gravel may result either from an excess of the crystallizable materials in the blood, making it impossible for the ordinary quantity of urine to keep all in solution that pass through the kidneys, or from a diminished quantity of water in the urine, or from changes of composition in that fluid resulting in a chemical precipitation of crystals. An excess of crystallizable materials in the blood results from overeating, from the excessive use of particular kinds of food by particular persons, and from diseases of other organs besides the kidneys, especially the liver and brain. The particular foods which, used to excess (and excess is a matter to be determined in each individual separately), may produce crystals in urine are meats, tomatoes, onions, garlic, sorrel, watercresses, rhubarb, strawberries, and coffee. These articles should all be either omitted or largely reduced by those who suffer from gravel. The patient who can trace his trouble to overeating in general, should also both reduce the amount of his food and increase his daily exercise. Water in the urine is reduced by increased perspiration, or by watery passages from the bowels, and by insufficient supplies of drinking-water. A person afflicted with gravel should drink abundantly, but should be particular to use only pure and soft water. If pure rain-water is not to be had for drinking purposes, as is the case in our large cities, distilled water,

or some of the pure table-waters, such as the Poland, Bethesda, or Clysmic, should take its place, and six to eight large glasses should be consumed daily.

The symptoms which indicate gravel are its appearance in the urine voided, and the pain it causes in passing through the urinary canal. A deposit in the urine, occurring within a few hours of its passage, should attract attention, unless it is of a very transient character. Any urine, however healthy, will become cloudy in time by standing, especially if it be allowed to become quite cold; but a cloudiness, or sediment appearing persistently in the urine at the time it is passed, or within six hours afterward, should send the patient to his physician without delay; and he should take with him to the doctor not less than two ounces of urine that was passed before breakfast in the morning of the day of his visit, and he should be particular to have the urine collected in a clean vessel, and carried in a clean bottle.

Cutting pains of a very severe character in the lower and back part of the abdomen, extending downward to the thigh and upward over the side, not relieved in any position, often so severe as to induce vomiting, beginning suddenly, continuing for a variable time—possibly for two or three days—and then ending suddenly, would indicate gravel. A stone in the bladder occasions frequent desire to pass water, with pains at the end of the penis which are worse just after emptying the bladder, and are better after time enough has elapsed for a little more urine to gather in that organ. With either stone or gravel it is usual to find some blood in the urine.

The treatment of these cases must be left to a physician, and the sooner the case is put into his hands the better. During the attacks of pain, poultices—made as directed on page 243—should be applied to the painful part, and sweet-oil may be taken in as large quantities as the patient can swallow, one or two pints being necessary to ease the passage of the stone. The preventive treatment, so far as it can be given in this work, will be found by studying what has been said of the causes.

Gall-stones also afflict, by preference, the aged; but these are more frequent in women than in men, probably because of their more sedentary habits of life. The causes are very similar to those which induce gravel, and the pain occasioned by the passage of a gall-stone is as intense as that caused by a kidney-stone; but it centres just to the right of the stomach, and is always associated with vomiting. The domestic treatment will be the same as that just directed for gravel; but, in addition, the patient should have a care to keeping the bowels regular.

Gout is a disease that rarely begins in old age, but as it is one which usually has long intermissions between its earliest attacks, and which makes itself felt at shorter and shorter intervals, the aged sufferers are those most afflicted by the malady. It is as yet a badly understood disease, but seems to depend upon an accelerated waste of tissue, which leaves its débris in the blood more rapidly than that fluid can be cleansed again by the proper organs. The use of improper food—be it the lobster salad and rich pastry of the high

liver, or the scanty fare of poverty—has much to do with bringing on the complaint, although a still greater share in that work falls to beer, ale, and strong liquor. Indolence and inherited tendency are also important causes. The attacks are often precipitated by a fit of indigestion or by cold, and usually occur at night. The joint of the great toe is apt to be first affected, apparently because the material in the blood that induces the pain and swelling settles to the lowest part of the body. An attack may sometimes be relieved by active exercise in the fresh air, and the indications for domestic treatment of the disease are to feed the patient abundantly (but not superabundantly) with wholesome and nourishing food, relying chiefly on meats thoroughly well cooked, eggs, and milk. Give him plenty of fresh air and active exercise, and allow him not a drop of any alcoholic liquor, no tomatoes, onions, garlic, sorrel, rhubarb, or water-cresses, and but few fresh vegetables of any kind. Further treatment should be directed by a physician.

Cold hands and feet are among the commonest evidences of that sluggishness of circulation which is such a marked symptom with the aged. When the trouble begins to show itself, moderate exercise in walking is to be advised as a preventive, together with the cold foot-bath at bedtime. This latter should be very shallow, and contained in a *wooden* tub or pail, as the contact with metal during the bath interferes with the reaction. Let the water be half an inch deep—enough to cover the soles only—of about seventy degrees, and keep the feet in it for from three to five minutes. Rub

the feet briskly when they are taken out, and take the bath at bedtime, so that the feet can be at once covered with the bedclothes. For the hands the use of wristlets of worsted is to be advised. Do not dress too warmly, or hug the fire too closely in winter, or fear a breath of a bracing winter's air. Plenty of oxygen in the blood is especially needed by elderly persons; without it the internal fires cannot be made to glow, and it must be taken in through the lungs by breathing an atmosphere which contains it in abundance. Old persons require an artificial temperature in winter rather higher than is best for youth and middle life; but no one should allow his thermometer to register higher than 74° F. in an artificially heated living room, and for all but the aged it should be kept below 72° F., except when nature sends it higher. As a rule, American houses present too great a contrast in temperature with the out-door atmosphere of winter, and Americans suffer in consequence.

Electricity is a useful means of improving the circulation, and is increasingly valuable in proportion to the age of the patient. The battery is of comparatively little use with the young; it comes into play with adults in chronic disorders and a few acute difficulties like felon, but with the aged its services are of the greatest value. Home use of it should, however, be rigidly limited to passing a current from hand to hand, or from either hand to the opposite foot. It is too powerful and dangerous an agent to be applied directly to any internal organ except under professional observation. Directions usually accompany the batteries of respon-

sible makers. The current of electricity will also relieve greatly the feelings of lameness and discomfort about the limbs (incipient paralysis) with which old persons are often afflicted.

Ulcers and sores upon the limbs do much to render miserable the lives of many of the aged. They are not suitable for home treatment, but something can be done to prevent them. When swelling and puffiness about the ankles are noticed after being on the feet for a time, unless there is some disease of the heart, liver, or kidneys, a sluggish circulation is shown, which will make the production of an ulcer easy, and its cure difficult. The patient should take a reasonable amount of exercise, and should make a practice of keeping the feet elevated while sitting, and should lie down several times during the day. But when an ulcer is once established and is discharging, a rapid cure should not be sought or permitted. When the system has formed the habit of throwing off poisonous matter at some point, the discharge cannot be stopped without danger, unless care be taken to provide elsewhere for the matters which sustain the discharge. The older a person becomes, the more dangerous it is to interfere with any of the habits of the system.

Impaired senses are among the trials of age, and are usually beyond the reach of medicine. But much can be done to compensate the failure of eyes and ears by the use of spectacles and ear-trumpets of various kinds. With regard to the latter, the patient may usually be safely left to select for himself from what the dealer has to offer, the only care required being enough

to prevent irritating the external ear by pushing into it hard and ill-fitting appliances. But with regard to spectacles the case is different, and it is usually best not to attempt to select these with the aid of the dealer only. Failing sight depends upon several causes, among which are modifications of the size and shape of the eyeball, or of the lens behind the pupil, failure in the transparency of this lens, or of the humors of the eye, and nervous affections. Spectacles can only help some of these troubles, and, while making it easier to see objects in other cases by increasing their apparent size, they may actually injure the eye. The fitting of spectacles, too, when they are required, is not a matter that can be done off-hand by the patient, but requires the careful measurements of the expert oculist (*not* optician.) When sight fails, then, do not think either that you can force the eyes to do their work by straining them and refusing to apply spectacles, or that you can step into a store and find for yourself a pair of glasses such as you need. Go rather to the specialist—to a physician who has given particular attention to diseases of the eye—and let him find out the exact cause and form of failure, and prescribe the best means for your relief. In that way the prospect is far better of keeping a serviceable pair of eyes for the comfort of declining years. Phenomenal eyes there undoubtedly are that need no glasses through a long life; but it is nevertheless a fact that the eye changes in shape from year to year and requires correcting by external lenses for some part of its work; and undoubtedly many of those who get along without glasses in old age, do so only because they are ignorant

of the assistance and pleasure they might find if a properly adjusted pair of spectacles were rested upon their several noses. And it must not be forgotten that changes go on in the eye as much with as without spectacles, and that in consequence new pairs will be required from time to time, each of which must be as carefully and skilfully selected as the first.

And now we must part with the long-suffering and much-enduring old lady and gentleman whose career we have followed from the cradle to an old age, which we hope will be as full of peace and happiness as the earlier years have been of trouble and disease. And bidding our old patients remember that the doctor is always their best friend, and the patent-medicine vender and advertising quack the worst enemy of their health, we wish them all joy, comfort, and repose.

CHAPTER XVIII.

ACCIDENTS AND EMERGENCIES.

Accidents belong to no age, or to all ages. They must have a chapter to themselves, although in the course of preceding chapters several of the sudden emergencies requiring medical treatment have been considered, viz. : Fainting, sunstroke, abortion, and a few others, for which consult the Index. It remains here to speak of some of the conditions that require immediate treatment, and that depend in no way upon the previous state of the patient's health for their causation.

Apparent death may be occasioned by drowning, by suffocation, by cold, or by lightning. In each case the endeavor should be to sustain the most essential vital processes until nature shall have had time to restore the functions suspended by the shock or accident. The body never dies all at once. Sometimes, as in leprosy and gangrene, parts of the body die by destruction of tissue, while the centres of life continue to animate the remaining sound, or comparatively sound, organs. More commonly, after more or less weakening of the whole body, the organs upon which the distribution of nourishment depends, namely, the heart or the lungs, or both, die, as far as their function is concerned, the de-

pendent processes all over the body cease for lack of supplies, and an organic death, of course, follows. In still other cases, from some obstruction or interruption to these central organs, suddenly cutting off supplies to them while in health, we have a form of death called "apparent," because if the obstruction can be removed, and these central processes sustained in some way till nature can recover from her shock, the death will not extend further, and being only functional and not organic, life will return to the body, which is still in perfect order and fitted to sustain it.

Drowning kills by preventing air from reaching the lungs. The nerve-centres that animate the lungs exert themselves to the utmost, but, failing to get the oxygen they need they are obliged to suspend their work, and death to the whole body is the consequence. But if the water can be cleared from the lungs, and air can be forced into them, life may return. And restoration should be attempted, even if the body have been under water for an hour, and should not be abandoned under two hours or longer, nor should there be the *slightest* interruption of the efforts about to be detailed even when changing operators.

First, clear the lungs and throat from water and all other obstructions. Do this by turning the patient face down and raising the middle of his body. Let him rest across your knees on his stomach, with his head hanging low, and held with the mouth open, in a position favoring the out-flow of water through his throat. Pound the patient's back, and jar his body to facilitate the exit of the water, but do not spend much time at

this part of the work—a few seconds will suffice—and if all the water be not out of the lungs, enough air-surface will be available to restore life if it be not too late. Then wipe out the patient's mouth, as far back as the finger can reach, with a handkerchief, free his chest and arms of clothing very quickly by tearing or cutting it away, and lay him on his back, with a roll of clothing or a solid cushion of some kind under his shoulders, letting the head hang down. Tie a piece of light twine very firmly about the tongue, and draw that organ forward and keep it out, either by letting some one hold the string or by tying it to the patient's chin, or to some object, in this way preventing the tongue from closing the air-passages of the throat.

Artificial respiration must now be begun, and continued without interruption till the patient revives, or till all hope must be abandoned, which should not be under two hours at least. Kneel down just above the patient's head, with your face toward his body (the patient should lie on the ground or floor; not on a bed), grasp both his arms as they lie beside the body, taking hold a little below the elbows. Now bring the patient's arms up, and a little across the chest, bent at the elbows so that his right hand shall touch his left shoulder, and his left hand his right shoulder; and then, still holding the arms, press with all your available weight through his arms upon his chest. Next, extend his arms, and bring them up over and beside his ears; and repeat these motions about as often as you ordinarily breathe yourself, say sixteen times in a minute—not oftener. The idea is to produce contraction of

the chest during the pressure, and expansion during the time that the arms are drawn over the head, and thus to force air to pass in and out of the lungs as in health. When the operator becomes exhausted, another should take his place without breaking the rhythm of the artificial breathing in the least.

The efforts just described should be made deliberately and gently, but firmly, and during their whole continuance every facility should be allowed for the access of pure, fresh air, if this work be done under a roof. Once every four or five minutes apply a cloth or sponge, wet with ammonia, to the nose, and blow the vapor into the nostrils; or a little snuff may occasionally be blown into the nose if ammonia be not at hand. While artificial respiration is kept up, efforts should also be made by the by-standers to secure warmth and circulation. Wet clothes should be removed entirely, the body dried and covered with blankets or dry clothing. Then rub, either under the blankets or over the dry clothing, making the passes upward, and with enough vigor to produce warmth. Apply hot bottles to the soles, pit of the stomach, and about the body; or, better, apply a capsine or mustard plaster to the pit of the stomach, and give special attention to warmth and circulation in this way as soon as the patient is able to breathe naturally.

When the patient becomes able to swallow, give him, first, a little hot water by teaspoonfuls, and a little later give hot brandy and water, or other alcoholic stimulant, or hot coffee, in small quantities, a teaspoonful at a time. Then get the patient to bed, make him warm

and comfortable, and let him sleep if he will, and as long as he will.

If an electric battery be at hand it will be well, during the efforts at artificial respiration, to use it to stimulate both heart and lungs. Use the sponge handles, which must be wet, and apply one sponge at the side of the neck, just below the ear; the other sponge should be applied to the middle of the chest just above the pit of the stomach, and this sponge should be pressed to the skin for an instant, and then removed, to be reapplied in the same way an instant later. Reapply about once every second for several minutes. Desist from these efforts if the heart be beating; but do not allow them to interrupt the artificial respiration. Do not cease artificial respiration for a few gasps on the patient's part, but continue till he breathes naturally and regularly.

Suffocation differs very little from drowning in the way death is brought about; but some of the gases that produce suffocation are poisonous, and, of course, gases gain access to the blood through the lungs much easier than water can do so. What is called carbonic acid gas (an incorrect name) is found in old wells, in beer vats, is produced by combustion, and is naturally given off in the breath, so that an unventilated room, in which many persons are congregated at once, rapidly becomes suffocating by reason of the presence of this gas. Carbonic acid is the cause of death when charcoal or other fires throw out a deadly gas, and the choke-damp which sometimes kills miners is the same substance. It can always be detected, wherever its presence

is suspected, by lowering a candle into it (the gas is heavier than air), the candle will go out in the gas, and it is never safe for a human being to go where a candle will not burn, or burns dimly.

The fumes of sulphur, ordinary illuminating, and other gases will produce suffocation, and in each case the treatment will be the same. First of all give the patient fresh air, and in abundance. Loosen all clothing about the neck and chest, and be sure that the mouth is clear and that the tongue does not obstruct the air-passages. Resort to artificial respiration as described above, if it be necessary, and use the stimulants and restoratives there advised. If the patient be able to breathe, but be dazed and unable to stand, the feet should be placed in hot water and the head bathed with cold water, or, better, cold vinegar; and if the face be dark or purple, the breathing heavy, and the pupils of the eyes very small, a few globules of *Opium* should be placed upon the tongue. But in all such cases fresh air is the most important remedy, and should be admitted without stint.

Hanging by the neck may produce only suffocation, in which case the treatment has already been sufficiently indicated. If the neck be broken all efforts at resuscitation will, of course, be futile.

Extreme cold may destroy life, or may injure more or less seriously the various members of the body. In the latter case the endeavor should be to restore the circulation to the frozen organ or body in the most cautious and gradual manner. For this purpose the patient must first be treated in a *cold* room, one that is protected

from wind and storm, but not warmed at all artificially. Here lay the patient down and cover him over with snow, or rub the affected limb with snow, or with ice-water if that be not available. After the limbs have become soft and free from stiffness, the patient may be put to bed in a warmer, but still not warm room, say of about forty-five or fifty degrees. While covered in the bed he may now be rubbed with the hand till he is quite warm. If the person seem dead, artificial respiration should be practised, as already described on page 273.

For the slight effects of frost known as **Chilblains** and **Chapping**, nothing is better than the application of vaseline. It should be thickly smeared over the affected parts at bedtime, and covered with an old glove, stocking, or cloth, to avoid soiling of the bedclothes. To prevent these difficulties the hands and feet should be warmed by exercise when cold, and never brought into close contact with fire heat till partially warmed. Care should be taken in washing the hands to let them become perfectly dry before exposing them to cold, and it would be better not to put the hands into very hot water at all, as is so often done in dish-washing and the like.

Lightning sometimes merely stuns and apparently kills, without actually destroying life. In addition to artificial respiration here, we need to provide for the restoration of the natural flow of the electric currents, which is best done by placing the patient in a good conductor. This may be accomplished by undressing him and placing him in direct contact with the ground,

covering the lower part of the body completely with light earth. Or a warm bath may answer the same purpose. Have the water at 95° F., and allow the patient to remain for half an hour or longer, while at the same time artificial respiration is performed, if needed, and the electric current is applied to the heart, as directed on page 275.

If the patient seem stunned and dazed by the lightning, a shock should be given him by dashing cold water over the body at short intervals. For the condition of nervous prostration and weakness that may follow exposure to lightning as an after-effect, or that may be induced by careless use of an electric battery or magnetic machine, the best treatment will be a very mild electric current run from one hand to the opposite foot. Reduce the current to a point at which it is barely perceived by a well person—no matter whether the patient can perceive it or not—and let the negative sponge be held in the right hand, while the left foot and the positive sponge are both placed in a bucket of water. After a while change to left hand and right foot, and run the current for a long time—an hour or more. Be careful, however, to employ a very mild current.

Starvation, when it has gone far enough to induce apparent death, must be treated by the very gradual re-supplying of exhausted material. It takes vital force to make vital force by digesting food and carrying it to the needy points of the body. Hence, when vital force is nearly exhausted by starvation, there is not enough of it left to digest a hearty meal, and supplies must be

sent in very gradually, as new chips must be gently laid upon dying embers if a fire is to be rekindled. Commence with a few teaspoonfuls of warm soup or milk, or inject two tablespoonfuls of warm milk gently into the bowel from a syringe whose nozzle has been greased with vaseline or sweet-oil before its insertion ; the injection to be retained in the bowel, from which it will be digested. If after taking a little food in this way the patient will sleep, so much the better. Do not disturb him, but when he wakes feed only a little more in the same careful way, till he seem quite revived. Always use warm food ; and a teaspoonful of wine mixed with a tablespoonful of milk will do good work in reviving a patient after starvation.

Burns and Scalds, when extensive, are among the most serious accidents. Indeed, when one-half of the skin is injured by great heat, recovery is of very rare occurrence. The effort must be to prevent the extension of the injury, and to protect the parts already burned or scalded from further irritation.

To prevent extension of the injury the fire must be put out, and the first thing to remember is that water should never be thrown upon a person whose clothing is on fire. The flames must be smothered, and to do this they should be wrapped in the nearest article that will shut off the supply of oxygen from them. A coat, shawl, rug, table-cover, or blanket will accomplish this, and, if at hand, should be closely bound about the burning articles of clothing. Grasp a blanket and spread it open before you, and with it rush upon the burning person with force sufficient to knock him down, if

standing; wrap the blanket closely about him and roll him over in it, to get the aid of his weight in smothering the flames.

If nothing suitable for smothering the flames be at hand, try to have the patient roll upon the floor or ground himself. Flames ascend, and hence the horizontal position is least favorable for the extension of the mischief. If the patient have not sufficient presence of mind to lie down, knock him down and roll him over.

When the flames are out, do not try to take off the clothing in the usual manner. What remains upon the injured parts must be carefully cut away with scissors, and gently lifted off from the skin, being very careful not to break or injure any blisters that may have formed. When the clothing is removed, the parts must be carefully and effectually protected from all contact with the air. This may be accomplished in several ways; perhaps the best for home use being the application of cotton-wool. Lay this on, thickly and smoothly, directly upon the skin, and so as to completely cover every burned spot, and tie it to the body by tapes so as to keep it in place. Other good applications are linseed-oil and flour, sweet-oil and flour, vaseline, glycerine, balsam of copaiba, or simple dry earth. The last of these is very highly esteemed by many physicians. Glycerine is especially valuable when the burn or scald is inside of the mouth. They should all be used in great abundance. If the burn were produced by one of the strong acids, the part should be bathed in ammonia water diluted (weak hartshorn), while if it

result from caustic potash, soda, lye, or lime, the parts should be bathed first in vinegar and water. Burns caused by phosphorus should be bathed in sweet- or linseed-oil. Burns caused by lunar caustic should be bathed in salt and water. The after-treatment of every kind of serious burn must be placed in the hands of a physician, as deformity and other serious consequences quite frequently follow when life is not destroyed. Send for the physician as soon as possible, and carry out the above plan until his arrival.

Stings and bites of insects give rise to much annoyance, and occasionally to more serious consequences. In case the sting is given by a bee or wasp, the wound should be carefully examined by the aid of a magnifier, to see if the sting have been left in the flesh, and if found it should be removed by small forceps, a penknife, or by pressing it into the central orifice of a watch-key. Alkaline substances, if employed early, are usually good applications to relieve the itching and stinging. The best are ammonia water and cooking soda ; or, common mud (wet earth), will be found an excellent application, as will also the oil of pennyroyal. The latter, if rubbed on the skin, will effectually keep mosquitoes from alighting. Camphor is also said to be a good application, and should be inhaled if the bites affect the system generally to any extent.

Bites of snakes or mad dogs are, of course, more serious affairs ; but they by no means necessarily involve a fatal issue. Many snakes are not poisonous ; and but few, comparatively, of those bitten by dogs that are undoubtedly mad are ever attacked with hydrophobia.

And with regard to dog-bites one very important thing should never be forgotten, and that is, that if a dog bites a person the dog should *not* be killed. He should be securely fastened where he can be inspected, but can do no harm, and an expert should be called to decide whether the dog be mad or not. For if he be not mad, knowledge of that fact may alone save the patient from an attack of hydrophobia, and if he be mad the proper treatment (for which a physician must be consulted) may prevent the attack. Hydrophobia is a disease of very irregular, but usually long, time of development, and it is a terrible thing to keep a person in suspense for months and years regarding his condition, because the dog that bit him was killed before it was certainly known whether he were mad or no.

In general all animal poisons are harmless when taken into the mouth, unless there be cracks or sores in the lining membrane of that cavity or in the lips, through which the poison may get into the blood. Hence poison may be sucked from a bite without danger, and as soon as means have been taken to keep the poison from spreading in the system this should be done. A handkerchief should be tied rather loosely, but with a strong knot, around the limb just above the bite. A cane or other stick should then be passed under the knot, and by its aid the handkerchief should be twisted so tightly as to stop the circulation in the limb. Then the poison should be sucked from the wound, which should be allowed and encouraged to bleed freely. When the poison is thought to be all removed, the wound should be either cut out bodily, or cauterized by the solid Nitrate

of Silver ("Lunar Caustic"), solid Caustic Potash, pure Hydrochloric (Muriatic) Acid, or by fire, as by a burning cigar or hot iron. Internally whiskey, brandy, or some other alcoholic stimulant should be given until the patient shows signs of intoxication. Usually this requires a large quantity to be given, as the snake and the alcoholic poisons seem to be mutual antidotes. Give the liquor in doses of a gill every twenty minutes till signs of its usual effects are apparent.

Wounds, of whatever sort, should be treated by a surgeon, if they be too serious to be cured by court or adhesive plaster. In applying these plasters, however, be particular that no dirt be left in the wound, and also that the edges be brought into perfect contact exactly as the parts lay before the accident, or as near to that position as possible. But

Bleeding should be stopped at once, and to accomplish this—if the matter be at all serious—lay the patient flat, and, if possible, have the wound at the highest point on the body. Bring the edges of the wound as closely together as can be done, and apply ice-water, or the coldest water that is to be had, at the part, doing this with the least possible disturbance of the wound. If this do not succeed, and it be a limb that is bleeding, apply a handkerchief above the wound, by tying it loosely around the limb with a strong knot, and then twisting it by means of a stick or cane inserted under the knot. If the bleeding still continue and be in spurts, and bright red, it is from an artery, and it may be possible to tie a bit of silk directly around this artery, as is done by surgeons. Burnt alum, powdered alum, and

cobwebs, are all excellent applications to stop bleeding. For nose-bleed and the bleeding of miscarriage consult the Index.

Broken limbs can usually await the coming of the surgeon without material harm to the patient, and therefore do not require consideration here.

Sprains and Dislocations also require professional treatment, for which they can usually wait without injury, but in these cases means should be taken to relieve the pain and inflammation which are likely to be set up. This can best be done by the application of very hot wet cloths to the injured part. Change the cloths frequently, keep them covered with dry flannel while in position, and wring them out of water as hot as the patient can bear.

Bruises require much the same external treatment, but the water used in this case should contain about one part in ten of the common Tincture of *Arnica*. And it is sometimes better to apply the hot wet cloth for two or three minutes, and then leave it off for as long a time, reapplying it each alternate three minutes as long as may be needed. In the case of bruises, too, it is well to mix five drops of *Arn.* tincture in half a glass of water, and give a teaspoonful internally every half-hour.

Foreign bodies in the various orifices of the body, if not easily removable, usually require the services of a surgeon having appropriate instruments; and there is rarely any such haste required as would make it difficult to secure a proper operator in time. Children have a fondness for poking beads and other small articles into

their noses and ears, as well as into the other orifices of the body, and when a child manifests such a propensity, if he seem to be unwell, a cause of irritation in the favorite receptacle should be sought. Things in the nose can be usually blown out, or *very gently* pushed backward to the throat by a perfectly smooth whalebone, but it is quite possible to do considerable injury by such pushing.

Foreign bodies in the ear require great caution, for they must in no case be pushed deeper into that organ as that may result in serious damage. It is usually best to remove such bodies by injecting gently into the ear, from a small syringe, warm water, which will get behind the body and press it out. If a bug should have crawled into the ear, warm sweet-oil should be injected instead of water; and in either case, if the ear be left in an irritated condition, it will be well to pour into it enough extract of *Witch Hazel*, which may be had at any drug-store, to fill the ear, leaving it in for four or five minutes. But never attempt to get a foreign body out of the ear unless you can distinctly see the body to be extracted. Much injury has been done by trying to pull things out of the ears when nothing foreign was in them. And no hard instrument should ever be used to clear the ears of wax. Wash or syringe them out with warm water, or let the wax stay in till you can see your physician.

Specks and Motes in the eye can be removed by various plans. First, take hold of the lashes of the upper lid, and draw the lid forward and down over the under lid, and while holding it in this position roll the eye rapidly five or six times, as if looking first down-

ward, then to the outside, then upward, and then toward the nose. If this do not send the mote out through the nose, which is the natural channel, it must be searched for and pulled out by a loop of bristle, made by holding in the fingers of one hand both ends of a smooth bristle from a hat brush. Bathe the eye with hot water.

Slivers and Splinters in the skin may be pulled out with tweezers, fine forceps, or a penknife, and after their removal the injured part may be bathed in the extract of *Witch Hazel*, or, if much inflamed, bathe first in hot water. Court-plaster or adhesive-plaster may be applied to the wounded surfaces after the foreign body is extracted.

Poisoning should always be suspected when a person in previous good health is suddenly sick with vomiting, prostration, or other severe symptoms; and such cases always demand the earliest possible attention, as only by speedily removing the hurtful substance that has been swallowed, or instantly rendering it harmless, can we hope to ward off its baneful effects. The things to be done in *every* case in which poison has been taken into the stomach are: First, keep cool; second, send for the nearest doctor or druggist; third, make the patient vomit; fourth, preserve carefully everything vomited or passed by the bowels or kidneys, and every paper, bottle, or other article that may be of use in finding out what poison was taken; fifth, give the antidote, if one that will be appropriate can be found and administered. Further treatment, as well as the means of inducing vomiting, may vary somewhat according to the kind of poison taken.

Vomiting may be induced most readily by tickling the back part of the throat with a feather, or even with the tip of the finger, and the plan is usually effective. The next most convenient means is the drinking of warm (not hot) water, in large quantities, and if the water be both greasy and dirty, like dish-water, it is, for emetic purposes, just so much better. Mustard—a tablespoonful to half a pint of warm water—is another very efficient emetic, and if a tablespoonful of salt be added to the mixture its action will be even more certain, or two tablespoonfuls of salt in half a pint of warm water may be used alone. Perhaps the best emetic is *Sulphate of Zinc*, which should be put up in powders of thirty grains each by the druggist. When wanted, put one of these powders in warm water, and *if necessary* repeat the dose ten minutes later. The action of all emetics is favored by having the stomach well filled with lukewarm water. If the patient vomit from the effects of the poison taken, promote and encourage that act by the means already detailed, and especially by free use of warm water.

In some cases it will be impossible to work by the mouth to induce vomiting, and then the following plan must be adopted: Fill a small tobacco pipe with tobacco, and light it. Grease the mouth-piece well, and pass it into the bowel for about an inch. Then cover the bowl of the pipe with that of another and larger pipe, or with tubing, a small funnel, or even a paper cornucopia—anything through which you can blow upon the burning tobacco sufficiently to gently force the smoke into the bowels.

As soon as vomiting has occurred you may proceed

with the treatment, giving the antidote as indicated in the following table ; always giving the most convenient antidote ; for the one that can be quickest administered is always the best till a better one can be brought by a messenger. The best antidote, when either can be had, is always the one mentioned first, but, in giving the antidote, do not cease the efforts to secure repeated vomiting. Never give any antidote for one class of poisons, if the poison taken be known to be of another class.

If the kind of poison taken be unknown, give first the *white of eggs*, in water. Beat up the white of half a dozen eggs in cold water. This will never do harm. Next give as much sugar-water as the patient will take. It never does harm, is wanted very often, and if craved by the patient is almost sure to do good. Next give soapsuds, unless you suspect that the poison taken was soda, potash, pearlash, lye, hartshorn, or other alkali. Make the soapsuds of pure, white, hard soap ; castile soap is the best. Next give vinegar and water, unless you suspect the poison to have been an acid. Acid poisons induce vomiting of such a character that the first matters ejected will effervesce if powdered chalk be thrown upon them. Next give sweet-oil, or rich milk, or cream. Next give camphor, by putting drops of it on sugar. Keep up the vomiting while giving these antidotes.

If the patient be weak and exhausted, give him stimulants, of which the best in these cases is usually strong, black coffee, and the less the kernels are roasted the better. Alcoholic stimulants will usually answer, unless alcohol or opiates be the poisons to be fought. If, how-

ever, the patient be drowsy and stupid, he must be roused and kept awake. The common plan of "walking" such patients is not good, as it exhausts the already depressed system. It is better to rely upon vigorous slapping of the naked skin with a wet towel, dashing cold and pretty warm water alternately in the face and over the body, pounding, and rubbing the flesh with the hands or stiff brushes, and similar means. Always keep the body warm, especially the extremities, and be ready to apply artificial respiration if needed (see Index).

TABLE.

POISON.	ANTIDOTE.
Acids.	
Sulphuric,	Soapsuds ; chalk-water ; magnesia, or lime-water ; plaster from the wall, in water. When danger is past give oil or rich milk.
Nitric,	
Muriatic,	
Oxalic,	
Carbolic.	
Alkalies.	
Ammonia,	Vinegar and water ; lemon-juice and water. When danger is past give oil or rich milk.
Hartshorn,	
Smelling salts,	
Pot or pearl ashes,	
Soda,	
Lye.	
Alcohol.	
	Ammonia, a teaspoonful in water ; Nux Vom., eight or ten drops of the tincture in water. Give a teaspoonful every ten minutes. Apply cold water to the head.

TABLE—*Continued.*

POISON.	ANTIDOTE.
Antimony.	
Tartar emetic,	Tannic acid, or nut-galls, in wa-
Wine of antimony,	ter; quinine, ten grains in water;
Butter of antimony.	strong black tea.
Arsenic.	
Paris green,	Freshly made hydrate of iron;
Scheele's green,	iron-rust in water; white of egg
Highly colored wall-paper,	and sugar-water. After the vom-
Green ribbons, and candies.	iting give two tablespoonfuls of
	castor-oil.
Belladonna.	
Deadly nightshade.	Laudanum (half a teaspoonful,
	but the dose for a child must never
	exceed five drops); camphor; cof-
	fee.
Camphor.	
	Belladonna, six drops of the
	tincture, in water; wine.
Cantharides.	
Hair tonics,	White of eggs; camphor on su-
Blistering plasters.	gar.
Chloral.	
	As for opium.
Copper.	
Verdigris.	White of eggs.
Digitalis.	
	Tannic acid; nut-galls; strong
	black tea.
Iodine.	
	Starch or flour, in water.
Lead.	
Sugar-of-lead,	Epsom-salt; Glauber's-salt; of
White paint.	either, one or two ounces, in water;
	white of egg.

TABLE—*Continued.*

POISON.	ANTIDOTE.
Mushrooms and decayed vegetables, fish or shell-fish.	Powdered charcoal ; two table-spoonfuls of castor-oil ; stimulants.
Mercury. Corrosive sublimate, Calomel, Blue pill, Cinnabar.	White of egg ; milk ; sugar-water ; strong tea. After vomiting give two tablespoonfuls of castor-oil, and stimulants.
Nitrate of Silver. Lunar caustic.	Salt and water, freely given.
Nux Vomica. Strychnine, St. Ignatius bean.	Bromide of potash ; chloral ; a teaspoonful of either, in water. Keep the patient quiet.
Opium. Morphine, Laudanum, Soothing-syrup, Also for Chloral.	Belladonna tincture (six drops) ; strong coffee. Keep the patient awake at all costs, and be ready to use artificial respiration.
Phosphorus. Matches.	Epsom-salt, one or two ounces, in water ; white of egg. Avoid oils.
Tartar Emetic.	See "Antimony."
Tobacco.	Strong black coffee ; Nux Vom., ten drops of the tincture, in water ; laudanum (ten drops ; for a child never more than five drops) ; cold to the head.
Zinc.	White of egg ; milk ; soapsuds.

For many other poisons no direct antidote is known, and they must be treated by the general principles mentioned, or as if the poison taken were unknown. Poisoning by inhaling chloroform or ether is to be treated as suffocation, with artificial respiration ; but it is well in these cases to occasionally hold the patient by his legs and let his head swing downward for a moment or two. But the great thing in all cases of poisoning is to get rid of the poison by vomiting and purging. The antidotes are of secondary importance.

PART V.

THE MEANS OF CURE.

CHAPTER XIX.

THE MEDICINES.

Whatever the physician can find in light, heat, electricity, air, water, earth, animal, vegetable, mineral, imagination, spirit, substance, science, art, or anything else in the whole universe that will help to restore a sick person to health—that is a medicine. The physician's skill shows itself in the nicety with which he will select from the vast field at command exactly what each individual case requires, and apply it for the speediest relief of the patient. The readers and users of this book are not supposed to be physicians in any proper sense, and the mere glance given above at the resources of medicine must make it evident that but a very few of the most commonly useful remedies can be mentioned here, and that even with those only that method of using them can be advised which, all things considered, has been found at once the most generally useful and

the safest in inexperienced hands. The prescriptions inserted throughout the book have all been made with direct reference to the quality, grade, and strength of medicine indicated in the present chapter ; and while no conscientious physician ever undertakes to assure a given result from any plan of treatment, it would manifestly be gross injustice to the author of this volume to attempt to use its prescriptions without selecting the medicines exactly in accordance with the specifications which follow.

Many of the medicines prescribed in the preceding chapters are of the kind known as homœopathic, while many others are the common drugs of the shop. In the present divided state of opinion, since class names and not the real value of preparations as medicines influence dealers in selecting their stocks, it often happens that no one dealer can be found in a given town who can supply everything called for in this work. The druggist who advertises to keep in stock homœopathic preparations, may have them only in one form or strength, while the homœopathic pharmacist may limit his stock solely to the articles prepared according to the directions of Hahnemann. If the clear instructions that follow do not enable the users of this volume to obtain of their local dealers everything mentioned, the publisher holds himself always in readiness to furnish whatever is here prescribed, in the exact form intended. All the medicines advised in globules, and many of those in powders and liquids, are homœopathic.

The Dose of many medicines, and the frequency of repetition in all cases have been carefully prescribed,

but some further directions are needed regarding the quantities of the homœopathic medicines which are to be mixed with water, as is frequently required. The method of dissolving medicines in water is always to be preferred, if possible, for when taken in this way a smaller dose will usually do the work of a larger dose taken otherwise, and, being more readily absorbed and diffused, will do that work quicker. Like all rules, however, this has its exceptions, since some medicines have to be taken dry; but even with these it is usually a good plan to follow the dose with a swallow of water.

The majority of homœopathic medicines required for the prescriptions of this book should be purchased in **No. 20 Globules.** Of these globules, unless otherwise directed, **twelve** should be dissolved in a glass two-thirds full of perfectly pure, soft water. This will be about six to eight tablespoonfuls of water (three to four ounces), and should always be put into a perfectly clean glass or cup, should always be carefully covered, and should never be preserved for more than twenty-four hours. The medicine should be taken with a bright silver teaspoon or tablespoon, which should be used for no other purpose, should never be left in the medicine, and should be carefully washed every time the medicine is changed. Always use the size of spoon directed, and remember that a tablespoon holds *four*, and not two, teaspoonfuls. Always throw away whatever medicine is left at the close of the day and begin the new day with a fresh supply of globules mixed with water.

If the medicine be in the form of powder it should be mixed with water, exactly as in the case of globules, unless otherwise directed. The quantity of powder required for a glass two-thirds full of water will be about as much as will lie piled upon a dime. If the directions require the powder to be taken dry, the dose will be about as much as will lie piled upon an old-fashioned silver three-cent piece. In those cases which sometimes arise where it is not convenient to take the globules in water, they may then be taken dry upon the tongue. In this case two globules should be taken, if the dose be a téaspoonful in water, and four globules, dry, may be substituted for a tablespoonful dose when taken in water. Half these quantities, either of globules or powders, dry or in water, should be used for infants and young children. In the few cases in which a liquid medicine is prescribed, unless otherwise directed, **five drops** should be mixed with two-thirds of a glass of water, which may then be used as if globules had been dissolved.

With regard to caring for the medicines, they ought always to be kept in a case by themselves, each bottle and each cork carefully labelled, and particular care should be taken not to leave the bottles open, not to exchange the corks, and not to allow dust to accumulate on the lips of the bottles, which may mix with the globules as they are poured out. The potencies of homœopathic medicines are always indicated in the centesimal scale, unless the decimal is specially mentioned.

Acetic acid is prescribed for a profuse flow of milk. It should be purchased in globules of the third

potency. Vinegar is an impure and dilute form of acetic acid, and is useful as an antidote to alkaline poisons, for bathing the face of persons who have fainted or been suffocated, and in very severe bleeding from the nose or womb it may be given mixed with three or four parts of water, in doses of a wine-glassful, repeated three or four times, if necessary, at intervals of fifteen minutes.

Aconite is a remedy of the first rank, and should be purchased in globules of the third potency. There is some danger that too much may be expected of this drug in domestic practice, for it is by no means the only remedy for fever, as many seem to think. It is wanted in the acute fevers and inflammations where the pulse is quick, the skin dry, and the thirst marked. The face is now red, now pale, or one cheek is red and the other pale. Restlessness and anxiety are its grand indications in fever, and it is mostly wanted in the early stages of many acute troubles. When sweating sets in, the usefulness of aconite is past. Neuralgia is a disease often helped by aconite; and it is especially likely to be right if the trouble were caused by a raw, cold wind, or by exposure to dry cold.

Æsculus hippocastanum, in globules of the mother tincture, is essential in the treatment of piles, where the bowel feels dry, as if full of sticks, the pains are burning and extend to the back, and the stools are hard and passed with much straining.

Alcohol and alcoholic liquors are required only for a few external applications, and in case of drowning, snake-bites, and some poisons. Regarding

their medicinal use under other circumstances, refer to what has been said in earlier chapters (see page 160).

Alum; either the common crystals powdered, or the burnt alum, can be purchased at any drug-store, and will be found an excellent application to bleeding wounds to stanch the blood. This substance if taken internally—and it is contained in some sorts of bakers' bread, and in baking-powder as an adulteration—results in obstinate constipation, with great dryness of the bowels.

Ammonia water, or Spirits of Ammonia, is to be used solely by inhaling it, or, as an external application, to wash off the stain of iodine, or to antidote burns produced by acids. The water will answer best, can be purchased at any drug-store, and should be diluted with about four parts of soft water for use.

Antimonium crudum is wanted in powder, the third trituration. It is required for some sluggish skin disorders, like corns and warts, and in dyspepsia where lack of vitality is evident in the stomach and bowels. The tongue is thickly coated white, and the symptoms are worse from cold, especially from cold bathing.

Antimonium tartaricum, or Tartar Emetic, is wanted in globules of the sixth potency. This is an important drug of extended usefulness. Inflammatory skin-diseases, especially if the eruptions be pustular, as in small-pox; and coughs and colds with a good deal of discharge which it is very difficult to expectorate, and associated with nausea, vomiting, and weakness, are among the conditions which it relieves. Difficulty of

breathing, owing to a combination of obstructed air-tubes and weakness, is a marked symptom.

Apis mellifica is the poison of the honey-bee, and may be used in globules of the third potency, for hives and other skin or internal diseases where there is stinging and burning, and also for dropsy anywhere in the body, especially in the sexual organs of women. The symptoms which it relieves are never better from warmth, and the patients needing it are apt to feel very sleepy much of the time.

Arnica is the grand remedy for bruises of every kind, and their consequences, whether nervous or muscular, spasmodic or inflammatory. The tincture should be purchased, and of this two grades are in market—the one made from the whole of the plant, and the other from the root only. The latter should always be used when the medicine is to be taken internally, and five drops of it, in a glass two-thirds full of water, is the proper proportion, from which the dose directed may be administered. For external use the tincture of the whole plant, which is cheaper, will answer; but it should be diluted with from four to ten parts of water before it is applied.

Arsenic should be used in globules of the twelfth potency, which are perfectly safe, while yet efficient as a medicine if used as directed. The range of usefulness of this remedy is very great; but there are certain marked peculiarities about a patient who needs it that are almost invariably present. He is very restless on account of pain, very much prostrated, and very irritable; while in a great many cases an aggravation in the

latter part of the night, a thirst which is incessant and tormenting, but which, nevertheless, calls for but a sip or two of water at a time, and a persistent dryness of the skin may be noticed.

Balsam of Copaiba is a thick, oily fluid which may be had at any drug-store, and which is an excellent application to burns, chilblains, chapped hands, and the like. It should be applied thickly; but it should not be swallowed unless prescribed by a physician.

Balsam of Peru is a darker and thicker liquid, also to be had of the druggists, and is of great use in allaying itching, especially at the back passage. It must be applied with caution to delicate membranes, as it often proves very irritating.

Baryta iodide should be bought in powder of the third potency. Its chief use is in reducing the swelling of glands, especially the tonsils.

Baths of various sorts are frequently needed for curative purposes, and are recommended throughout the volume, while baths for cleansing are discussed in the Introduction (see Index).

Belladonna is a medicine of the very highest value, and should always be at hand ready for use in globules of the third potency. In some cases of poisoning it may be necessary to use it in the form of tincture and in doses of five or six drops, and this form of the medicine may be had at most drug-stores, although for the sake of securing a definite strength the tincture had better be of homœopathic preparation, as the globules must be. Active congestion and inflammation are most characteristic of belladonna. The skin is red, the face flushed,

the head throbbing, the eyes glistening and sleepless, the pupils dilated, the pains shooting or darting, the mind excited; and a very characteristic feature indicating this medicine is that the symptoms appear suddenly and as suddenly they are gone. *Never* use the liquid form or tincture of this medicine unless it is especially prescribed.

Borax will be needed in two forms, at least if there be a baby in the family. The crude article, as sold in the drug-stores, is needed in some recipes with other articles, and in water is an external application of great value for sore mouth and scalp of infants, and for sore nipples. The powder of homœopathic preparation, third potency, will also be needed to mix with water for internal use in similar conditions, especially for infants. Do not give the crude powder internally.

Bryonia should always be at hand in globules of the first decimal potency. It is a grand remedy in fevers characterized by intense thirst and profuse perspiration, and is one of the first drugs to think of in coughs with marked pain in the chest. It also reaches many headaches, and is indicated by two peculiarities in the great majority of the symptoms calling for its use, namely, improvement from external warmth, and aggravation from motion of any kind, even if the patient be restless and desires frequently to change his position or location.

Calcarea carbonica is at once a medicine and a food, and it is a curious fact that taking it as a medicine seems to aid the body to accept and use it as a food when needed. The medicine should be in globules of

the sixth potency, and will be required in all those cases where the nutrition of the body or of some portion of it seems to be impaired. When the fontanelles do not close, the legs and back are weak, the flesh flabby, or the vitality low, there this medicine will be likely to do good.

Calcarea phosphorica is very similar to the last-named medicine, but is better adapted to certain conditions for which it has been prescribed in preceding chapters. Purchase globules of the sixth potency. And much the same may be said of

Calcarea iodata, which has a special relation to glands. It should be purchased in powder of the third potency.

Camphor must be at hand in two forms. Globules made from the tincture will be needed for internal use and should be taken dry; and the Spirits of Camphor of the drug-shops, or better, the Tincture of Camphor of homœopathic preparation, for administration by inhaling, for bathing the face in case of fainting, and for dropping on sugar in case a heavy dose is needed as an antidote in poisoning. The **Camphorated Oil** of the drug-stores may also be required to dry up a breast that is giving milk which is not needed. The medicine (camphor) is a quick, mild, and brief stimulant, and will do wonders if at hand when needed, in conditions which it will not affect if used too late. If taken in the first chill of a cold it will often effect a cure, and it is very valuable in the coldness and cramps of cholera.

Cantharides is a remedy for urinary difficulties when there is painful urging, with burning and scanty

passages or retention. It has other uses, but they need not be mentioned here. Buy globules of the sixth potency.

Capsicum is the homœopathic preparation of red pepper, and should be used in globules of the second potency. It is a mild and prompt stimulant, which materially aids other medicines in speedily accomplishing their purpose.

Carbolic Acid, which is needed as an injection to allay the pain of piles, should be purchased only in combination with glycerine, in the proportion of twenty drops of the acid to an ounce of the glycerine. Of this mixture, which may be had at any drug-store, only two teaspoonfuls should be used at once, diluted with two tablespoonfuls of hot water. As a disinfectant the acid should be purchased diluted with thirty parts of water.

Carbo vegetabilis, or the homœopathic preparation from wood charcoal, is wanted in globules of the sixth potency. Its chief use is in stomach and bowel disorders where a great deal of wind is formed in the abdomen, which occasions acid risings and belchings with oozing of sour moisture from the bowels, and with headache. Nose-bleed and other discharges, especially the whites and offensive lochia of women, are cured by it; and the crude, common charcoal, powdered, is a useful antidote to poisoning by mushrooms and decayed animal and vegetable substances.

Castor-oil is a drug far too commonly used in family practice. It clears out the bowels, it is true, and it is advised in earlier chapters to rid the system of tape-worm and certain poisons, after the one has been killed and

the other antidoted. But clearing out the bowels is more likely to increase than to cure a constipation, since that trouble may depend upon many conditions to which castor-oil or any other purgative is not in curative relation; and forcing the bowels to act, when the system generally does not demand such an action, is one of those interferences with nature which she always resents. Leave all purgatives entirely to the physician's prescription.

Caustics are necessary applications to the bites of snakes or mad dogs after the poison has been sucked out and the wound bled. A hot iron, a lighted cigar, muriatic acid, caustic potash, and lunar caustic or nitrate of silver, are recommended for these purposes. The latter, in the strength of ten grains to an ounce of water, is also advised as a wash for itching of the privates. As an application to warts the solid stick of lunar caustic should be used, rubbing it upon the pared and moistened lump of flesh as often as needed. All these chemical caustics are active poisons, and all can be had at any drug-store.

Causticum is a homœopathic preparation, wanted in globules of the sixth potency, for wetting the bed and for hoarseness. It does good work, too, in neuralgia, and seems to act best where nervous weakness is the foundation of the troubles for which it is used.

Chamomilla is a drug suited to very sensitive conditions of the nervous system, and as the nervous systems of children are naturally sensitive, it is frequently prescribed for little sufferers. And as it has a marked affinity for the liver, which, when disordered, is apt to induce much peevishness and irritability, such mental

states often indicate its use. Motion, as when being carried, seems to relieve a sufferer whose ailments call for this drug; but do not use chamomile tea. Buy, rather, globules of the third potency, which will do all the good work and leave no evil after-effects behind.

Chelidonium, globules of the first potency, finds its great indication in a dull, heavy, pressing pain in the back, just below the lower angle of the right shoulder-blade, which is one sign of a disordered liver. When this sign is found, with other bilious symptoms, chelidonium will do much good.

China is the homœopathic preparation from the same source as quinine, and will answer best in globules made from the tincture. This is one of the most useful, and, at the same time, in its crude form, one of the most abused of medicines. With regard to its abuse, see an earlier chapter on the subject of Malaria. With regard to its use, its great sphere is in those cases where the system has sustained severe losses, especially of fluids. These losses may be by bleeding, sweating, expectorating, vomiting, purging, by the mouthly sickness, flooding, or whites, and may produce a great number of evil consequences, for all of which china will be of use. Quinine, too, has its important uses; but these are decidedly *not* in domestic practice, except as an antidote to some poisons.

Chininum-arsenicum, in powder of the third potency, will be found the most valuable single remedy that can be named in all sorts of diarrhœas, especially those that arise from eating unripe fruits or other laxative articles.

Chloral is another much-abused drug, which should only be used in domestic practice as an antidote to poisoning by strychnine.

Cimicifuga, which is sometimes called *Actea* or *Macrotys*, is wanted in rheumatic and neuralgic conditions, in globules of the tincture. It is a splendid remedy in lumbago, and the liquid tincture can be added to hot water, about one part to ten, and applied as a foment in backache with good effect.

Cina, in globules of the first potency, is useful for worms, wetting the bed, and other difficulties of children, who are pretty sure to be peevish in those conditions which the medicine will relieve.

Cocculus, in globules of the third potency, is another medicine which finds its chief use in the troubles of childhood; but which is of much service in the pains and colics which some women suffer at the monthly period.

Coffea, in globules of the sixth potency, has aided many a person to find needed sleep when nature seemed to deny that blessing. It serves best where mental excitement and activity of thought seem to induce the sleeplessness; but where pain, delirium, and that nervous excitement which shows itself in quick and restless motions and tossings are absent. Strong black coffee (without milk) is one of the most useful stimulants in cases of poisoning requiring such treatment, as coffee is an obstacle to the action of many poisons, and also to the medicines made from them.

Collodion, for painting upon painful eruptions, may be had at any drug-store, and the flexible form

should be preferred. One part of glycerine in fifty parts of ordinary collodion makes an excellent, flexible, and elastic preparation.

Colocynth for internal use should be in globules of the second potency, which will do wonders for colics with much wind in the bowels, especially if the patient seek relief by drawing up the knees and bending double.

Dioscorea is wanted in similar conditions where the pains are relieved in exactly the opposite manner, namely, by straightening out the body, and by walking in the open air. Purchase globules of the tincture.

Drosera, in globules of the third potency, is an important remedy for coughs, especially old, chronic, spasmodic coughs that tire the patient, induce nose-bleed and even vomiting, and that seem to empty the lungs and prevent the patient from catching his breath during the paroxysm. Such a condition is found in whooping-cough.

Dulcamara, in globules of the third potency, is very valuable for colds that result from dampness, no matter where they settle. If this cause can be traced, and cold, damp weather always make the patient worse, the drug is pretty sure to be the one wanted.

Epsom Salt can be had of any druggist, and is necessary in cases of poisoning; but it is not to be used as a purgative in domestic practice. On this subject, see the paragraph in this chapter on Castor-oil.

Galls, or Nutgalls, as they are often called, may be used to antidote certain poisons when tannic acid cannot easily be obtained. Twenty grains should be thrown into water and swallowed.

Gelsemium is a valuable remedy which should be kept in the form of tincture. It can usually be had at drug-stores, but it is better to select the homœopathic tincture, as its strength is more reliable. In some conditions, like measles, it is to be administered by dropping five drops into half a glass of water, from which the doses prescribed may be administered; but in many cases five drops of the tincture are to be taken at a single dose, mixed with a little water. And it is usually better in such cases to use hot water to carry the dose, as it assists materially in getting the medicine into the circulation. Sick-headache, rush of blood to the head, dizziness, neuralgia, and difficult menstruation are the conditions calling for the use of gelsemium, and in case too large a dose should be taken it will temporarily affect the sight.

Clauber's-Salt calls for remarks very similar to those made under "Epsom-Salt" and "Castor-Oil," in the present chapter.

Glonoine should be in globules of the sixth potency. It is a remedy for fulness and throbbing in the head, with weakness and dizziness, but without fever or inflammation. Neuralgia, sunstroke, and rush of blood to the head are its prominent fields of usefulness.

Glycerine is an important article for application to irritated surfaces, either internal or external. Burns, chaps, sores, and excoriations are soothed by it. It is especially soothing to burns inside of the mouth; it will often relieve a cough due to irritation in the throat if a teaspoonful or two of it be taken into the mouth and

allowed to diffuse itself downward. It is also a good vehicle for other medicines.

Graphites, in globules of the twelfth potency, will be wanted for moist, scabby eruptions upon a skin which shows a great tendency to crack. Cracked finger-nails are also cured by it. The eruptions which it suits best come at the angles of nose, mouth, joints, and behind the ears. It will need to be taken for some time.

Hamamelis will be required in two forms. Globules made from the tincture are needed internally in affections of the veins with bleeding of dark blood, as in nose-bleed and piles, and in venous troubles without bleeding. Besides this, a large bottle of the extract should be in readiness for use as an application in ear-ache, piles, cuts, wounds, and excoriation of the skin. Much relief can be obtained for painful piles by sitting over the steam from hot extract of Hamamelis. "Pond's Extract" is a widely known brand, but is probably no better than many others. Witch-Hazel is the common name of the plant.

"Hanchett's Saponaceous Dentifrice" is a safe, reliable, and pleasant tooth-soap, recommended on page 101.

Hepar sulphur must also be used in two forms, both of which are homœopathic. The third decimal powder will be wanted in quinsy when the tonsils are very large, full of matter, and about to break; also in boils when they are slow in coming to a head, but are too large to disappear in any other way. This medicine is to be given dry upon the tongue. Besides this form

will be required globules of the twelfth potency, for use in glandular affections and troubles of the skin, gums, mouth, and throat, in which, if taken in time, it will prevent the formation of matter. Always use the globules unless the powder is especially ordered.

Hot Water is often wanted for internal use, and for this purpose it is better to have it freshly boiled in glass or bright tin. It should not be drawn from a range-tank, or through service-pipes, as when taken from such a source it is almost certain to contain harmful metallic substances dissolved from tank or pipes.

Hyoscyamus should be purchased in tincture, and although this may be had at most drug-stores, the homœopathic tincture will be found a more reliable preparation. Although the medicine has many uses, these, as a rule, are either not within the range of domestic practice, or are covered well enough by Belladonna, which is a closely related drug. But for sleeplessness from nervous excitement, with restless tossings and twitchings, but without pain, this will be found a useful remedy. It requires to be taken, however, in doses of ten drops, which may be repeated at intervals of two hours, if necessary.

Iodine Tincture, diluted part for part with alcohol, may be had of any druggist, and is to be used externally exclusively. Even in this strength it occasionally takes off the skin—a result which is never desirable—and for infants and young children it should be still further diluted, when needed, by an equal part of water. This last preparation will not keep well for any length of time. Nothing will so quickly reduce a swollen gland,

or relieve an inflamed throat as iodine painted upon the skin outside. It seems to improve the quality of the blood and favor its healthy circulation, and it is of use in all localized inflammations of recent origin to which it can be applied.

Ipecacuanha, in globules of the third potency, is wanted chiefly for coughs, disorders of the stomach and bowels, and for bleeding of bright red blood. One point will be sufficient to attract attention to it when needed, and that is, the intense and persistent nausea that accompanies all the symptoms for which it is useful.

Iron in some of its preparations is the great antidote for arsenical poisoning ; but the hydrate, which is the only reliable preparation, must be made fresh by the druggist at the time it is needed. Iron rust in water may be used till the hydrate can be obtained. If thought best the tersulphate of iron and the magnesia solutions, from which the hydrate of iron is made, may be obtained in proper proportions of a druggist, and kept in the house ; then, in case of need, the antidote can be quickly prepared.

Iris, in globules of the second potency, is a very valuable remedy for headaches, especially for sick-headaches of stomach origin, and where intense acidity of the stomach is noticeable.

Kali-bichromicum, in powder of the third potency, is useful for coughs, when the expectoration is so tough that it will form long tenacious strings which it is difficult to detach from the mouth.

Lachesis, in globules of the ninth potency, is a blood and constitutional remedy which is in frequent demand

for women at the change of life. Hot flushes, heat at top of head, flooding, and carbuncles are among the conditions that it cures, and two marked peculiarities will guide to its selection: 1. All its symptoms are worse after sleeping, without regard to the time of day when the patient sleeps. 2. Its pains are worse, or make their first appearance on the left side of the body.

Lavender can be had at any drug-store in several preparations, but as an external application to relieve itching it is best to buy the oil mixed with alcohol in the proportion of one to sixteen.

Lime-water may be purchased at a drug-store, or a piece of lime may be shaken in pure soft water in a bottle, and allowed to stand till the top becomes clear. Only the perfectly clear top part of the water should ever be used, and this should be drawn off, without disturbing the bottle, by using a siphon tube or a syringe; a clean one, of course. The use of this substance to antidote acidity of the stomach should not be practised, but it is needed in poisoning by acids, and has also been advised as an addition to cow's milk for infants, under peculiar conditions.

Lycopodium, in globules of the twelfth potency, is a good remedy for windy distention of the abdomen. Its peculiarity is that its symptoms are worse late in the afternoon, and that the wind in the abdomen moves about, causing both pain and a gurgling sound. Red sand in the urine also calls for lycopodium.

Magnesia carbonica will be useful, in globules of the sixth potency, for conditions which chiefly affect young children. When teething is late, and the teeth

as they come are poor and painful, with swelling of the gums, and little blisters in the mouth, this is the remedy. Also, for thin, green, frothy stools, like the scum of a frog-pond, with cutting pains through the abdomen. The medicine also relieves difficulties with the monthly sickness where the flow is much increased by night. The magnesia-water needed as an antidote to acid-poisoning is made from the carbonate, but must be obtained at a drug-store.

Mephitis, in globules of the twelfth potency, will be required in cases of whooping-cough.

Mercurius solubilis, in globules of the sixth potency, must not be confounded with the numerous preparations of crude mercury to be had in the drug-shops; for although this medicine is prepared originally from quicksilver, as are those, the steps through which it passes, before becoming the homœopathic medicine here advised, are such as rob it entirely of those dangerous qualities which make it unsafe for the domestic prescriber to use the ordinary mercurials. This medicine, with some allied preparations mentioned below, is required in a very large number of troubles in all parts of the body, but especially in disorders affecting the digestive organs, and those lined with mucous membranes. Where it is needed, the patient is pretty sure to feel worse at night, and if he sweat, to get no relief in consequence, even though the sweating be profuse, and to have profuse and thin discharges from the mucous membranes of eyes, nose, mouth, throat, and bowels, and especially from the salivary glands in the mouth.

Mercurius corrosivus, in globules of the third potency, is a better preparation than the above for use in bowel disorders where there is a desire for stool which is not removed by a bowel movement, causing the patient to strain without expelling anything further. In this state blood is often passed from the bowels, but does not come from piles.

Mercurius proto-iodatus should be used in the form of powder of the first potency. It is the great remedy for swollen glands, as in quinsy and mumps.

Mercurial Ointment, which is to be had at the drug-stores, is an external application, and should be mixed with vaseline before it is used. It is a poison to parasites, which cause some skin diseases, and it should be washed off by tar-soap when its work is accomplished.

Muriatic Acid has been advised as a caustic application for the bites of snakes and mad dogs. The chemically pure acid as sold at the drug-stores is intended; but it must not be forgotten that this is a dangerous and poisonous liquid, which will burn the skin if brought into contact with it. If kept at all, it should be in a glass-stoppered vial, in a safe place, quite by itself.

Mustard can be bought anywhere, and should always be on hand as a medicinal substance, but certainly not as an article of food. The old-fashioned mustard-plaster may well give place, however, when such a thing is needed, to the elegant mustard leaves now in the market, which only require wetting to fit them for use.

Nux vomica is a medicine of the very highest value and importance, and should always be at hand in glob-

ules of the second potency. In some cases of poisoning it may also be required, in doses of eight or ten drops of the tincture, but the latter is to be had at either a drug-store or an homœopathic pharmacy, while the globules are only to be had at the latter. The troubles requiring the medicine have been mentioned throughout this work, but it may be remarked that a singular peculiarity of a patient requiring Nux is his marked irritability, not only of mind but of the affected organ. Another peculiarity is the aggravation of all the diseased conditions in the morning—not specially after sleeping, as in cases where Lach. is required, but at the special time of day. The patient is very likely to wake up about three o'clock in the morning and lie awake an hour or so, in a by no means agreeable humor, till shortly before rising time he again falls asleep. This is the grand medicine for persons who have been dosed and drugged till it is hard to say which of their symptoms are due to their diseases, and which to the so-called cures they have taken; and it is also very useful with persons who have dissipated much, and spoiled both nerves and stomach in so doing. Always use the globules unless the liquid tincture is especially directed.

Oils of several kinds, all of which are procurable at the drug-stores, and most of which have been already mentioned, will be required for various purposes. The oil of pennyroyal enjoys the reputation of being able to prevent the attacks of mosquitoes; while olive-oil is an article so frequently useful, both as a food and a medicine, that it is very difficult to procure a pure article. Probably the bottled oil sold by first-class grocers

is the best in the market. This oil is useful to lubricate internal passages, for which purpose it must be used in large quantities, as advised for gravel, and it is soothing after poisoning by corrosive substances.

Opium, in globules of the third potency, is a very different article from the crude preparations of ordinary drug-stores, and can safely be used in the conditions for which it is appropriate, without the slightest danger of evil after-effects, or the production of an "opium habit." The conditions requiring this medicine are those involving a marked fulness of blood in the head, with small contracted pupils and heavy breathing. **Laudanum**, which is prepared from crude opium, and sold at the drug-stores, will be wanted as an antidote to some poisons, and for this purpose it is very difficult to state its dose, as a very little is a dangerous quantity for some persons, while astonishingly large doses have been borne by others. The safe dose seems also to vary with the same person under different circumstances. While half a teaspoonful may be used with adults in some cases of poisoning, a dose of over ten drops is not to be administered to children at any time unless by a physician. Never use this medicine to allay pain or produce sleep; many a person is in his grave as the result of such attempts.

Petroleum, in globules of the third potency, will be required to ward off sea-sickness.

Phosphorus, in globules of the sixth potency, will be found a valuable remedy for hoarseness, oppressed breathing, nervous exhaustion, nervous cough induced by a constant tickling in the throat, and for conditions

where bleeding from the nose and from small wounds has the peculiarity of continuing for a long time, as if the blood had lost the power of clotting.

Phytolacca, in globules of the tincture, will be found useful in painful affections of the breast, tongue, and upper part of the trunk, and is especially recommended for an excessive secretion of milk, with exhaustion and pain in the breast at and after nursing.

Plasters of various sorts are among the helps in treating disease that are not to be ignored. For binding up trifling wounds, arnica court-plaster is known to every one, and for larger wounds, what is called surgeon's adhesive plaster can be had at any druggist's. It comes covered by a facing which must be removed after a plaster of suitable size and shape has been cut out. The plaster adheres to the skin without either wetting or warming it, and is usually more troublesome to remove than to apply. It can better be taken off by a quick jerk than by any slow, coaxing processes; but care must be taken not to tear open the wound afresh in pulling away the plaster. Medicinal plasters are sometimes of great service in treating diseases, but they are so unreliable as to be unworthy of a general recommendation in such a work as the present. Those made by Seabury & Johnson, and by Johnson & Johnson are the best. Corn plasters should be of felt, gummed on one side, with a hole in the middle, and without medication. Felt in large pieces, similarly gummed, may be had, and from it strips may be cut to surround and protect bunions.

Platt's Chlorides were advised as a cleansing injection after childbirth, but the preparation has many

other uses in purifying and disinfecting sick-rooms and other places and articles. It is well to have it on hand, and use as directed in any case of serious illness. Buy of the druggist.

Podophyllum, in globules of the tincture, will be needed in some conditions growing out of a disordered liver and described by many as "bilious." It is especially called for in a condition giving rise to a diarrhoea in the morning only, which is green, slimy, and offensive.

Pond's Extract (see *Hamamelis*).

Potassii bromide, or Bromide of Potash, is recommended in its crude state, as sold at the drug-stores, as an antidote to poisoning by *Nux vomica* or *Strychnine*. It must be taken in doses of thirty grains, which may be dissolved in water. The use of this article to induce sleep should never be attempted except under the direction of a competent physician.

Pulsatilla will be required as often as, or oftener than, any other medicine, and should be at hand in two forms. For ordinary use select globules of the third potency, but a little of the tincture will also be needed, since in cases of earache, styes, and after the labor, it should be mixed with other medicines and taken or applied in a liquid form. This remedy has certain peculiarities making it very likely to cure conditions that are decidedly improved by going out of doors into the fresh air, although the patient *may* not have any longing for fresh air or any desire to get out of doors. The patients helped by this medicine are also averse to eating fats of every description, and are usually worse an hour or more

after meals, especially if a stomach disorder be the occasion for treatment. A patient requiring *pulsatilla* rarely has any thirst; the discharges from eyes, nose, throat, and sexual organs are yellowish-green and rather thick; there is usually chilliness, the pains shift rapidly from place to place, the symptoms are constantly changing; and in the sexual sphere of woman, where the medicine finds much to do, the periods are scanty and delayed.

Quinine, which can be had at the drug-stores, but which should only be used by the domestic prescriber in some cases of poisoning, has been mentioned in connection with China in the present chapter.

Rhus toxicodendron should usually be administered in the form of globules of the sixth potency, but a very little of the tincture will also be required to mix with other medicines as an external application for styes. It is of use in skin affections of various sorts, and in rheumatic pains, and the great peculiarity leading to its use is that the patients get worse while they sit or lie still, and are better when they move about; but it must be noticed that they are often so stiff that at the beginning motion hurts, and so weak that they soon tire of the movements. The troubles which it cures are worse from cold and in wet weather. Never use the liquid tincture of this medicine unless it is specially directed.

Rumex will be wanted in the form of homœopathic tincture, as an application, after mixing with water, to certain eruptions on the face.

Sabina, in globules of the tincture, should be at hand in case of abortion, miscarriage, or severe bleeding from the womb.

Saltpetre may be had at any drug-store, and is the explosive element in gunpowder. It dissolves in four parts of water, and if pieces of blotting-paper, about the size of an ordinary playing-card, be soaked in this solution, and then dried, the smoke which they will give off when burnt will be found to relieve a patient suffering from asthma.

Sanguinaria, in globules of the third potency, will cure disturbances of the circulation resulting in a tendency of blood to the head, as in sick-headaches with torpid liver, and in the "hot flushes" to which women are subject at the change of life. It is also of use in colds in the head with much sneezing, and in dry coughs from tickling in the throat-pit. The headaches that this medicine cures are apt to spread over the head and settle above the right eye.

Secale, in globules of the tincture, will do much to relieve conditions occurring after childbirth.

Sepia, in globules of the sixth potency, is a remedy often of service in conditions peculiar to women, although it is by no means limited to that kind of work. The most marked peculiarity presented by patients in need of this medicine is the presence of patches of unhealthy-looking, clay-colored, or brown skin, especially a "saddle" of that appearance across the root of the nose. "Bearing-down" pains low in the abdomen, piles, and constipation are cured by it, and it will be found especially helpful during pregnancy, and at the change of life. Wetting the bed is a trouble of children which it cures frequently.

Silicea, in globules of the twelfth potency, is an important remedy in troubles where matter forms, as

in boils and felons, and here it is especially useful to heal up the parts after the gathering has broken. It also reaches headaches of a neuralgic character, and many other difficulties, most of which are too obscure in their origin to be successfully treated at home.

Spigelia, in globules of the third potency, is a useful remedy for neuralgia of the face, eye, and heart. The eye is especially painful, and worse from every motion. Palpitation often accompanies the pains about the heart.

Spongia, in globules of the third potency, is often recommended in croup, particularly where the breathing sounds as harsh as sawing wood. It probably derives its value mostly from the iodine which is contained in the original sponge, and it is by no means so valuable a medicine as is iodine applied externally.

Staphisagria, in globules of the tincture, will be useful in toothache, where the teeth are black and crumbling, and in styes, especially those coming on the lower eyelid. The powdered seeds, mixed by the druggist with five parts of vaseline, make an excellent application to destroy lice.

Sulphur is a medicine of the first rank, and will usually be wanted in globules of the twelfth potency, although for the sore mouth of infants a prescription has been advised containing the sublimed sulphur as found at ordinary drug-stores. Skin diseases very frequently require this medicine, especially if itching be a pronounced symptom, but no organ or region of the body exists which may not be benefited in some diseased conditions by a few doses of sulphur. A careful analysis

of its powers would be out of place in this work, and a brief sketch of the peculiarities demanding its use it would hardly be possible to write. The domestic prescriber must be content with following the directions for its use given under various diseases earlier in this work.

Tabacum, in the form of the homœopathic tincture, is one of the best applications to aching, decayed teeth, but must be put on cotton directly into the tooth, care being taken not to swallow any of the liquid. Globules made from the tincture and dissolved in water, however, give a medicine for internal use that will do much in some cases of toothache, while injections of tobacco smoke are sometimes necessary to induce vomiting after poison has been taken. The method of giving such injections will be found in the chapter on poisoning.

Tannic Acid may be had at any drug-store, and is easily dissolved in water for use. It is an antidote to some poisons, and is useful as an external application to stop bleeding.

Thuja is an application which often cures warts. Paint on the wart, by a camel's-hair pencil, some of the homœopathic tincture.

Veratrum album, in globules of the third potency, is a valuable remedy in disorders of the stomach and bowels, with diarrhœa, cramps, and vomiting. Cold sweat, watery stools, and great weakness are the conditions which should suggest this medicine.

Viburnum opulus is one of the very best medicines for the cramps and other pains associated with the monthly periods of some women. The homœopathic

tincture should be used, and that in doses of ten drops, taken in water, once in two hours, if needed so often. Its action will be quicker if taken in hot water.

Zinc Sulphate will only be wanted to induce vomiting in case of poisoning. It can be had at the drug-store, and may be given in doses of thirty grains taken in water.

CHAPTER XX.

THE INDICATIONS FOR MEDICINES.

The following pages are to be regarded as a sort of index to the preceding chapter. In using the indications it must be remembered that the symptoms given are selected from a vast mass of material, and are inserted here to aid in finding some particular medicine suitable for some peculiar condition. The symptoms are selected, not because they are those most likely to afflict patients, or because they are best suited for domestic treatment, but because if presented by a patient they are the most reliable indications for the special medicines named in connection with them. Do not look here for the treatment of any disease. Refer to the Index for the name of that disease, and follow the directions of earlier chapters. But if some symptom occur which does not seem to belong to any particular disease, search for it in this chapter, and, if found, turn to the article in Chapter XIX. on the medicine mentioned, and if it appear to correspond with the needs of the patient, give it in the dose and according to the directions at the beginning of Chapter XIX. Usually four doses a day of the medicine, dissolved in water, a tablespoonful of the solution at each dose, will be about

right; but in case of urgency give a teaspoonful of the solution every hour. Wherever two or more medicines are mentioned for the same symptom, the selection must be made by studying the preceding chapter, and if but one symptom can be distinguished, then, and only in that case, select the medicine in italics. Many symptoms will be found below which are not mentioned in earlier chapters; but, at best, such a repertory as the following is a mere skimming of the surface of the subject, and in the present case it is, of course, limited to the drugs mentioned in Chapter XIX. The abbreviations can be understood by referring to the "List of Medicines" on page 25.

Abdomen and back, pressure in, during menses. Puls.	Acidity of the stomach. Iris.
Abdomen and leg muscles, cramps in. Verat. alb.	After labor or abortion, bleeding from womb, blood dark and clotted, pain in back. Sabina.
Abdomen distended. Coccul.	Afternoons (late in), worse. Lyc.
Abdomen distended and hard. Calc. carb.	Aggravation at night. Merc.
Abdomen distended and painful. Colo.	Aggravation from keeping still. Rhus tox.
Abdomen full to bursting, with wind. Carbo veg.	Aggravation from motion. Bry.
Abdomen, much wind in. Coccul.	Aggravation in morning and after eating. Nux v.
Abdomen, pressure in, as from a stone, an hour after eating. Puls.	Aggravation late in afternoon. Lyc.
Abdomen, tight feeling in. Calc. carb.	Aggravation of all complaints after sleeping. Lach.
Abdominal cutting pains. Bell.	Air, sensitive to open. Hepar.
Abortion or labor, bleeding after, blood dark and clotted, with pain in back. Sabina.	Alternations (rapid) of chill and heat. Acon.
Aching pain and stiffness, better from moving about. Rhus tox.	Animal fluids, consequences of loss of. China.
Acid fluid oozes from bowels. Carbo veg.	Ankles swollen. Apis.
	Anxiety and nausea. Ant. tart.
	Anxiety and restlessness. Acon.
	Anxious and restless from pain. Ars.

- Anxious dreams. Acon.
 Anxious, oppressed breathing. Sulph.
 Backache, breaking pains. Bell.
 Backache with piles. Aesc. hip.
 Back and abdomen, pressure in, during menses. Puls.
 Back and neck pain, rheumatic. Cimicif.
 Back and top of head ache, with womb troubles. Cimicif.
 Bad breath. Puls.
 Bad smell in nose. Puls.
 Bad taste in mouth. Puls.
 Bad taste in mouth mornings. Nux v.
 Ball, sensation of, rising into the throat. Lyc.
 Barking cough, with pain in throat. Bell.
 Barking, dry, croupy cough, with sawing breathing. Spong.
 "Bearing-down pains." Bell.
 "Bearing-down" pains, as though the womb would fall out. Sep.
 Bedclothes too heavy to be borne. Lach.
 Bed feels too hard. Arn.
 Belching, with taste of food. Ant. crud.
 Belchings after eating, with taste of the food. Puls.
 Belchings, constant and violent. Carbo veg.
 Belchings, incomplete, burning. Lyc.
 Belchings, offensive. Arn.
 Belchings, smell of bad eggs. Cham.
 Belchings, sour and bitter. Nux v.
 Better by bending double (colic). Colo.
 Better by pressing abdomen (colic). Colo.
 Better by straightening body (colic). Dios.
 Better from being carried (child). Cham.
 Better from moving about. Rhus tox.
 Bitter, or sweetish, pasty taste in mouth. Sulph.
 Bitter, sour belchings. Nux v.
 Bitter taste. *Carbo veg.*, Cham., Chel.
 "Black heads" on face. Sulph.
 Bladder, cutting, burning pain in. Canth.
 Bleeding. Burnt alum.
 Bleeding, bright red blood. Ipec.
 Bleeding, dark blood. Ham.
 Bleeding from womb after labor or abortion; blood dark and clotted, with pain in back. Acet. ac., *Sabin.*
 Bleeding from womb, a "gush" of bright red blood, after labor. Secal.
 Bleeding from womb, blood black, fluid, and of bad odor. Secal.
 Bleeding piles, dark blood. Ham.
 Bleeding profuse. Acet. acid.
 Bleeding, sore, swollen gums. Merc.
 Blisters anywhere on the body. Rhus tox.
 Blisters on tongue. Cham., Lyc., *Rhus tox.*
 Bloated face, dark red. Opium.
 Blood and mucus in stools which are not satisfying. Merc. cor.
 Blotches itch, and ooze a watery, sticky fluid. Graph.
 "Blue," irritable, complaining, ill-humored. Nux v.
 Bluish and white about the mouth. Cina.
 Blurred sight and dizzy. Gels.
 Body cold, head hot. Arn.
 Boils, disposition to. Sil.
 Bone or splinter sticking in throat (sensation of). Hepar.
 Boring finger into nose. Cina.

- Bowels burn in back passage after stool. Iris.
 Bowels feel dry and full of sticks. Aesc. hip.
 Bowels sore, full, itching, and burning. Aesc. hip.
 Breast (in), painful, hard lumps. Phytol.
 Breasts inflame and swell. Phytol.
 Breasts painfully distended with milk. Acet. acid.
 Breasts sore to touch. Calc. phos.
 Breathing anxious and oppressed. Sulph.
 Breathing deep, moaning. Opium.
 Breathing difficult. Ars.
 Breathing difficult, wheezing, with nausea and anxiety. Ipec.
 Breathing heavy; stupid and dull. Opium.
 Breathing hindered by paroxysm of coughing. Dros.
 Breathing oppressed, with cough, load on chest. Phos.
 Breathing oppressed, with displaced womb. Sep.
 Breathing, sawing, with dry, barking, croupy cough. Spong.
 Breath short, from suppressed expectoration. Ant. tart.
 Breath short, from wind in stomach. Lyc.
 Bright sparks and flashes before the eyes. Bell.
 Brown or reddish liver-spots on skin. Sep.
 Bruised, sore, weary, weak. Arn.
 Bruises, consequences of. Arn.
 Burning, cutting pains in bladder. Canth.
 Burning in back passage after stool. Iris.
 Burning, incomplete belchings. Lyc.
 Burning, itching, and soreness in back bowel. Aesc. hip.
 Burning, itching, here and there, worse from warmth. Puls.
 Burning, itching, scaly eruptions. Ars.
 Burning mouth, throat, and stomach. Ars.
 Burning sensation, internal or external. Ars.
 Burning, stinging pains. Apis.
 Burning thirst. Acon.
 Burning urine. Ars.
 Burns. Balsam of Copaiba.
 Bursting headache. China.
 Canker sores in mouth. Rhus tox.
 Carbuncles and sores, unhealthy. Lach.
 Carried, cries to be (child). Cham.
 Changing symptoms. Puls.
 Chest, load on, oppressed breathing, with cough. Phos.
 Chest oppressed. Ars.
 Chest pain, especially left side, and cough, with womb troubles. Cimicif.
 Chest, rattling in, with the breathing. Ipec.
 Chest (sides of) and throat raw, with cough. Nux v.
 Chest, stitches in, with cough. Acon.
 Child cries to be carried. Cham.
 Child cross and won't be petted. Cina.
 Chill and heat alternate rapidly. Acon.
 Chilliness and cold sweat. Verat. alb.
 Chilliness and nausea, followed by heat flushes, with headache. Sang.
 Chilliness, constant, worse in warm room. Puls.
 Chilly feelings on sudden change of weather. Camph.

- Chronic conditions of all kinds which do not improve by well-selected medicines. Sulph.
- Chronic diarrhœa, worse in morning. Sulph.
- Chronic, spasmodic cough. Dros.
- Clothing and bedclothing too heavy to be borne. Lach.
- Cloudy urine, dark yellow. Chel.
- Coated (thick white) tongue. Ant. crud.
- Coffee causes headache. Nux v.
- Cold body, hot head. Arn.
- Cold, damp feet. Calc. carb.
- Cold in the head, discharge of thin (not watery) mucus. Merc.
- Cold in the head, now running, now stopped up. Nux v.
- Cold in the head, with thick, yellowish-green discharge, worse in a warm room, better out-of-doors. Puls.
- Cold, pale, sunken face, with diarrhœa. Verat. alb.
- Cold sensations. Camph.
- Cold sweat and chilliness. Verat. alb.
- Cold sweat on forehead, with dizziness, pupils small, head full. Opium.
- Coldness, but refuses to be covered. Secal.
- Coldness, internal and external. Verat. alb.
- Coldness, numbness, and insensibility of limbs. Secal.
- Coldness of limbs. Camph.
- Colds and coughs, worse in damp weather. Dulc.
- Colds with headache, worse in morning. Nux v.
- Colic and cramps with menses. Vib.
- Colic and diarrhœa from cold. Camph.
- Colic better by bending double. Colo.
- Colic better by pressing abdomen. Colo.
- Colic better by straightening out the body. Dios.
- Colic, cutting, griping, twisting. Colo., Dios.
- Colic, flatulent. Caps., Colo., Dios.
- Colic, from wind. Carbo veg.
- Colic in children, cutting. Cham.
- Colic of wind at night. Coccul.
- Colic, with headache and constipation, difficult to pass wind. Nux v.
- Colic with too early menses. Coccul.
- Complaining, ill-humored, irritable, "blue." Nux v.
- Complaints all worse after sleep. Lach.
- Complaints worse from cold and dampness. Dulc.
- Confusion of head as if intoxicated. Nux v.
- Congestion of blood to the head. Opium.
- Congestions and inflammations, violent. Bell.
- Consequences from bruises. Arn.
- Consequences from loss of any animal fluid. China.
- Constant chilliness, even in a warm room. Puls.
- Constant thirst, dry mouth. Bry.
- Constant violent belchings. Carbo veg.
- Constantly changing symptoms. Puls.
- Constipation during pregnancy. Sep.
- Constipation obstinate, stools hard and dry. Bry.
- Constipation of scanty, insufficient stools. Sulph.
- Constipation, stools of hard, round, black balls. Opium.
- Constipation, stools slip back when partly out. Sil.

- Constipation with frequent desire for stool. *Nux v.*
- Constipation with headache in forehead. *Nux v.*
- Constricted feeling about abdomen. *Calc. carb.*
- Contracted pupils. *Opium.*
- Convulsive twitching of muscles. *Cham.*
- Copious diarrhoea, with profuse sweat. *Verat. alb.*
- Corners of mouth sore. *Merc.*
- Corns and warts. *Ant. crud.*
- Cough and pains through the chest (especially left side), with womb troubles. *Cimicif.*
- Cough, barking, pain in throat. *Bell.*
- Cough caused by being uncovered, or by any portion of the body becoming cold. *Hepar.*
- Cough causes inclination to vomit without nausea. *Ipec.*
- Cough, chronic, spasmodic. *Dros.*
- Cough, croupy, awakening in first sleep. *Acon.*
- Cough, dry, barking, croupy, with sawing breathing. *Spong.*
- Cough, dry, from tickling in throat. *Bell., Sang.*
- Cough, dry, short, hoarse, after exposure to dry, cold winds. *Acon.*
- Cough, dry, with severe pains in chest. *Bry.*
- Cough, dry, worse lying down, goes away on sitting up. *Hyos.*
- Cough from breathing cool air, or every time he lies down. *Rumex.*
- Cough from tickling in throat, worse out of doors. *Phos.*
- Cough in paroxysms, prevents breathing. *Dros.*
- Cough pains the throat. *Caust.*
- Cough, spasmodic, whooping. *Dros., Meph.*
- Cough, with difficult expectoration. *Ant. tart.*
- Cough, with expectoration of thick, yellow mucus, worse in a warm room, better out of doors. *Puls.*
- Cough, with nosebleed and nausea. *Ipec.*
- Cough, with oppressed breathing and sense of load on chest. *Phos.*
- Cough, with profuse expectoration and much sweat, worse nights. *Merc.*
- Cough, with raising of very tough expectoration, which draws out into strings. *Kali-bich.*
- Cough, with raw feeling in throat and sides of chest. *Nux v.*
- Cough, with stitches in chest. *Acon.*
- Coughs and colds, worse in damp weather. *Dulc.*
- "Courses," see "Menses."
- Cracked, crusty, sore nostrils. *Ant. crud.*
- Cracked, dry, red tongue. *Rhus tox.*
- Cracked, hard skin of hands. *Graph.*
- Cracked, sore, painful nose. *Graph.*
- Cracked thick nails. *Graph.*
- Cracking and soreness of lips. *Graph.*
- Cramps and colic, with menses. *Vib.*
- Cramps in muscles of abdomen and legs. *Verat. alb.*
- Cramps of calves of legs. *Camph.*
- Cramps, with suppressed menses. *Coccul.*
- Craving for food, which is vomited as soon as taken. *Verat. alb.*
- Craving for outlandish food. *Calc. carb.*
- Crawling, itching sensations in various places. *Sil.*

- Cries to be carried (child). Cham.
 Cross child, won't be petted. Cina.
 Croupy cough, awakens in first sleep. Acon.
 Croupy cough, dry, barking, with sawing breathing. Spong.
 Crusts that mat the hair, with scalp eruptions. Graph.
 Crusty, cracked, sore nostrils. Ant. crud.
 Cutting and griping in bowels, violent. Opium.
 Cutting and griping, with green, frothy stool like scum of frog-pond. Mag. carb.
 Cutting, burning pain in bladder. Canth.
 Cutting colic in children. Cham.
 Cutting, griping, twisting colic. Colo., Dios.
 Cutting pains. Bell.
 Cutting pains in abdomen. Bell.

 Damp cold feet. Calc. carb.
 Dark blood from nose relieves headache. Ham.
 Dark-red, bloated face. Opium.
 Debilitating, profuse sweat. China.
 Debility. China.
 Debility and over-sensitiveness. Nux v.
 Deep, snoring breathing. Opium.
 Delayed first menses. Puls., Sil.
 Delayed teething. Calc. phos.
 Desire for stool frequent, with constipation. Nux v.
 Desire to pass water, frequent and sudden. Sulph.
 Diarrhœa and colic from cold. Camph.
 Diarrhœa, chronic, especially in the morning. Sulph.
 Diarrhœa, copious, with profuse sweat. Verat. alb.
 Diarrhœa of undigested food. China.
 Diarrhœa, painless. China.
 Diarrhœa, with much wind, in early morning only. Podo.
 Diarrhœa, yellow, watery, after taking cold. Dulc.
 Diarrhœas in general. Chin.-ars.
 Difficult breathing. Ars.
 Difficult breathing, with wheezing, anxiety, and nausea. Ipec.
 Difficult expectoration, with cough. Ant. tart.
 Difficult passage of urine, retention. Acon.
 Difficult passing of urine. Ars.
 Difficult periods (monthly), with colic. Vib.
 Dilated pupils. Bell.
 Dim sight and vertigo. Gels.
 Discharge from nose, thin and irritating. Ars.
 Discharge of thin (not watery) mucus, with cold in the head. Merc.
 Discharges after labor, profuse, dark, and of bad odor. Se-cal.
 Disordered stomach from fat food and pastry. Puls.
 Disorders from eating fats. Puls.
 Displacements of the womb. Sep.
 Disposition to boils in various places. Sil.
 Dissipation causes headache. Nux v.
 Distended, hard abdomen. Calc. carb.
 Distended, heavy stomach, after eating but little. Lyc.
 Distended, painful abdomen. Colo.
 Distended, painful breasts with milk. Acet. ac.
 Distention and fulness of abdomen with wind. Lyc.
 Distention of abdomen. Coccul.
 Dizziness and blurred sight. Gels.
 Dizziness or headache after eating. Nux v.

- Dizziness, with cold sweat on forehead, small pupils, and fullness of the head. *Opium*.
- Dizzy heaviness of head in morning. *Nux v.*
- Downward motion, dread of. *Borax*.
- Dreams, anxious. *Acon*.
- Drinks often, but little at a time. *Ars*.
- Drooping eyelids, with headache. *Gels*.
- Dry, barking, croupy cough, with sawing breathing. *Spong*.
- Dry cough from tickling in throat. *Bell.*, *Sang*.
- Dry cough, with severe pain in chest. *Bry*.
- Dry cough, worse lying down, disappears on sitting up. *Hynos*.
- Dry, cracked, red tongue. *Rhus tox*.
- Dry, crusty skin, without eruptions. *Ant. crud*.
- Dry feeling in bowels, as if full of sticks. *Aesc. hip*.
- Dry, hard stools, obstinate constipation. *Bry*.
- Dry, hard stools, with piles. *Aesc. hip*.
- Dry, hot, burning eyes. *Bell*.
- Dry mouth, constant thirst. *Bry*.
- Dry, short, hoarse cough, after exposure to dry, cold winds. *Acon*.
- Dry skin in fever. *Acon*.
- Dry throat, much saliva in the mouth. *Merc*.
- Dry throat, sore, inflamed, and swollen, worse left side, and sensitive to touch. *Lach*.
- Dryness of mouth, tongue, and throat. *Bell*.
- Dull and stupid, with heavy breathing. *Opium*.
- During menses, pressure in abdomen and back. *Puls*.
- Earache, violent. *Puls*.
- Early and profuse menses, bright blood. *Bell*.
- Early menses (too), with colic. *Coccul*.
- Early (too) and too profuse menses. *Calc. carb*.
- Ears (behind), sore, moist places. *Graph*.
- Ears, ringing in. *China*.
- Empty feeling in stomach and abdomen. *Sep*.
- Eructations smell of bad eggs. *Cham*.
- Eruptions, burning, itching, scaly. *Ars*.
- Eruptions on scalp, with crusts matting the hair. *Graph*.
- Eruptions which burn and itch. *Sulph*.
- Eruptions with matter, thick. *Ant. tart*.
- Excessive flow of milk from painful breasts. *Phytol*.
- Excessive thirst. *Verat. alb*.
- Exhausted and weak after sleeping. *Lach*.
- Exhaustion and weakness. *Ars*.
- Expectoration difficult, with cough. *Ant. tart*.
- Expectoration of thick, yellow mucus, with cough, worse in a warm room, better out-of-doors. *Puls*.
- External and internal coldness. *Verat. alb*.
- Extreme sleepiness. *Apis*.
- Eyelids drooping, with headache. *Gels*.
- Eyelids heavy, swollen, stiff. *Rhus tox*.
- Eyelids, inflamed margins of, styas. *Graph*.
- Eyelids, red and inflamed. *Ant. crud*.
- Eyelids, red, swollen, inflamed, glued together mornings. *Merc*.

- Eyelids swollen, pale. *Ars.*
 Eyelids swollen, red, and puffy. *Apis.*
 Eyes, dry, hot, burning. *Bell.*
 Eyes, forehead, and temple, neuralgia in. *Spig.*
 Eyes inflamed, much thick discharge. *Puls.*
 Eyes inflamed; the discharge "gums" on face. *Rhus tox.*
 Eyes painful, as if too large; worse on motion. *Spig.*
 Eyes sparkling. *Bell.*
 Eyes, whites are dirty yellow. *Chel.*
- Faceache. *Spig.*
 Face bloated, dark red. *Opium.*
 Face flushed, red, hot. *Bell.*
 Face pale and sunken. *Ant. tart., Ars.*
 Face pale, cold, and sunken, with diarrhoea. *Verat. alb.*
 Face puffy. *Apis.*
 Face swollen and red. *Rhus tox.*
 Face twitches. *Bell.*
 Face yellow. *Chel.*
 Fainting. *Ammonia, Camph., Caps.*
 Fainting from loss of blood. *China.*
 Falling of the womb. *Sep.*
 Fast, full, hard, and strong pulse. *Acon.*
 Fast, strong pulse. *Bell.*
 Fat food or pastry disorders stomach. *Puls.*
 Fatigue after slight exercise. *Gels.*
 Fear of downward motion. *Borax.*
 Feeling of a hair lying on tongue. *Sil.*
 Feet cold and damp. *Calc. carb.*
 Fermentation in abdomen from eating fruit. *China.*
- Fever, with dry skin. *Acon.*
 Fever without thirst or sweat, or sometimes with sweat. *Bell.*
 Fever, with rheumatic pain. *Acon.*
 Fever with thirst and sweat. *Bry.*
 Finger-nails thick and cracked. *Graph.*
 First menses delayed. *Puls.*
 First menses suppressed. *Sil.*
 Fish-bone or splinter sticking in throat (sensation). *Hepar.*
 Flashes and sparks before eyes. *Bell.*
 Flatulent colic. *Colo., Dios.*
 Flatus, much offensive. *Carbo veg.*
 Flooding. *Lach., Sabin., Sec.*
 Flow of milk, excessive, from painful breasts. *Phytol.*
 Fluid (acid) oozes from bowels. *Carbo veg.*
 Fluid, any animal, consequences of loss of. *China.*
 Fluid, sticky and watery, from itching blotches. *Graph.*
 Flushed, red, hot face. *Bell.*
 Flushes, hot; change of life. *Lach.*
 Flushes of heat, whizzing in ears, rush of blood to head. *Sang.*
 Foot-sweat, offensive. *Sil.*
 Forehead aches, with constipation. *Nux v.*
 Forehead, temples, and eyes, neuralgia in. *Spig.*
 Frequent desire for stool, with constipation. *Nux v.*
 Frequent passing of water at night. *Sep.*
 Frequent, scanty, and watery stools. *Ars.*
 Frequent stools of greenish mucus. *Ipec.*
 Frequent sudden desire to pass water. *Sulph.*
 Frequent urging to pass water, from pressure of womb on bladder. *Sep.*
 Fresh air, longing for. *Puls.*

- Frontal headache. Bry.
 Frothy green stools, like scum of frog-pond, with cutting and griping. Mag. carb.
 Full and tight feeling in stomach. Carbo veg.
 Full, slow pulse, with heavy breathing. Opium.
 Full, strong, hard, and fast pulse. Acon.
 Fulness and distention of abdomen with wind. Lyc.
 Fulness and heaviness in forehead. Acon., Bry., Dulc.
 Fulness in stomach after eating but little. Sulph.
 Fulness, pain, and soreness in region of liver. Podo.
 Fulness, weight, and heat in head. Gels.
- Glands of neck and throat swollen and sore. Bary. iod.
 Glands swell and mature. Hepar.
 Glands swollen. Merc. prot.
 Great fulness and distention of abdomen from wind. Lyc.
 Great thirst and sweat, with fever. Bry.
 Great thirst, burning. Acon.
 Green, frothy stools, like scum of frog-pond, with cutting and griping. Mag. carb.
 Green, watery, hot stools. Cham.
 Griping about the navel. Cina.
 Griping and cutting in bowel, violent. Opium.
 Griping and cutting, with green frothy stools, like scum of frog-pond. Mag. carb.
 Griping, twisting, cutting colic. Colo., Dios.
 Gums sensitive to cold water. Sil.
 Gums, sore, swollen, bleeding. Merc.
- Gums, swollen, sore, teething late. Mag. carb.
 Gushing, yellow, watery stools. Podo.
 Hair lying on tongue (sensation). Sil.
 Hair matted by the crusts in scalp eruptions. Graph.
 Hands hard and cracked skin. Graph.
 Hard and distended abdomen. Calc. carb.
 Hard, dry, difficult stool, with piles. Aesc. hip.
 Hard, dry stool, obstinate constipation. Bry.
 Hard, painful lumps in breasts. Phytol.
 Hard, strong, full, and fast pulse. Acon.
 Hawking of much thick, tenacious mucus in mornings. Kalibich.
 Headache as soon as awake in morning. Nux v.
 Headache at the back and top of head with womb troubles. Cimicif.
 Headache begins at the back, spreads upward, and settles over the eyes. Sang.
 Headache better from passing urine. Gels.
 Headache, bursting. China.
 Headache commences in morning on opening the eyes. Bry.
 Headache from dissipation, wine, coffee, or medicines. Nux v.
 Headache from overloaded stomach. Puls.
 Headache, heavy, pressing, right side. Chel.
 Headache, hot and throbbing. Bell.
 Headache in forehead, with constipation. Nux v.

- Headache in paroxysms. Sang.
 Headache just above eyeballs. Cicicif.
 Headache, mostly in right side, with nausea. Iris.
 Headache, mostly in right temple and eye, worse from noise, motion, or jarring. Spig.
 Headache or other disorders from eating fats. Puls.
 Headache, pressing in back of head. Bry.
 Headache, pressing out of forehead. Bry.
 Headache relieved by nosebleed of dark blood. Ham.
 Headache, sick. Ipec., Iris., Gels., Nux v., Sang.
 Headache, weight and pressure on top of head. Cicicif.
 Headache, with colds, worse in mornings. Nux v.
 Headache, with drooping eyelids. Gels.
 Headache, with nausea and chilliness, followed by heat flushes. Sang.
 Headache, with stiff neck. Sil.
 Headache worse from mental or physical exertion. Nux v.
 Headache, worse from noise or motion. Bell.
 Headache, worse from slightest motion, even of eyes. Bry.
 Head, cold in, now running, now dry. Nux v.
 Head confused, as if intoxicated. Nux v.
 Head feels numb. Graph.
 Head full, small pupils, dizzy, and cold sweat on forehead. Opium.
 Head, fulness and throbbing of. Glon.
 Head heavy and dizzy in morning. Nux v.
 Head hot, body cold. Arn.
 Head hot, full, and heavy. Gels
- Head, rush of blood to, with whizzing in ears and flushes of heat. Sang.
 Head, shocks in, with every pulse. Glon.
 Head, top of, feels as if it would fly off. Cicicif.
 Head, top of, hot. Lach.
 Heartburn. Caps.
 Heart, palpitation of. Ars.
 Heart, palpitation of, with anxiety and restlessness. Acon.
 Heat and chill alternate rapidly. Acon.
 Heat flushes. Lach.
 Heat flushes, rush of blood to head, and whizzing in ears. Sang.
 Heaviness and fulness in forehead. Acon., Bry., Dulc.
 Heaviness and pressure in stomach, as if distended, after eating but little. Lyc.
 Heaviness of head, dizzy in morning. Nux v.
 Heaviness, swelling. and stiffness of eyelids. Rhus tox.
 Heavy breathing; stupid and dull. Opium.
 Heavy, pressing headache, right side. Chel.
 Hemorrhages, bright, red blood. Ipec.
 Hemorrhages, dark blood. Ham.
 "Hemorrhoids," see "Piles."
 Hiccough. Lyc., Nux v.
 Hoarse, dry, short cough, after exposure to dry, cold winds. Acon.
 Hoarseness and rough voice. Phos.
 Hot, dry, burning eyes. Bell.
 Hot flushes at change of life. Lach.
 Hot head, cold body. Arn.
 Hot, red, flushed face. Bell.
 Hot, red skin. Bell.
 Hot, scanty, painful urine. Acon.
 Hot, watery, green stools. Cham.

- Hunger, but a little food fills the stomach. *Lyc.*
 Hunger for outlandish food. *Calc. carb.*
 Hungry soon after eating. *Cina.*
- Ideas slow, inability to think. *Phos.*
 Ill-humored, irritable, "blue," complaining. *Nux v.*
 Impatient and peevish. *Cham.*
 Incomplete belchings, burning. *Lyc.*
 Indisposed to mental exertion. *Phos.*
 Inflamed eyelids, red. *Ant. crud.*
 Inflamed margins of eyelids, styas. *Graph.*
 Inflamed, red, swollen eyelids, glued mornings. *Merc.*
 Inflamed, swollen, sore dry throat, worse left side and sensitive to touch. *Lach.*
 Inflammation and swelling of breasts. *Phytol.*
 Inflammation and swelling of the skin. *Rhus tox.*
 Inflammation of eyes; discharge "gums" on the face. *Rhus tox.*
 Inflammation of the eyes, with much thick, yellow discharge. *Puls.*
 Inflammations and congestions, violent. *Bell.*
 Injuries (slight) maturate; unhealthy skin. *Hepar.*
 Insensibility, numbness, and coldness of limbs. *Sec.*
 Insufficient, scanty stools, with constipation. *Sulph.*
 Internal and external coldness. *Verat. alb.*
 Intoxicated confusion of head. *Nux v.*
 Irritable, "blue," complaining, ill-humored. *Nux v.*
- Irritable skin, cannot bear touch even of clothing. *Lach.*
 Itching. *Lavender.*
 Itching and crawling sensations in various places. *Sil.*
 Itching and stinging when taking off the clothes. *Rumex.*
 Itching and tingling of the skin, with burning and soreness after scratching. *Sulph.*
 Itching blotches, oozing a watery, sticky fluid. *Graph.*
 Itching burning, here and there, worse from warmth. *Puls.*
 Itching, burning, scaly eruption. *Ars.*
 Itching, burning soreness, and fullness of back bowel. *Aesc. hip.*
 Itching of scalp, sore after scratching. *Sil.*
 Itching of the privates. *Borax, Balsam of Peru.*
 Itching of the privates of either sex, internal or external. *Sulph.*
 Itching of the privates of women. *Sabin.*
 Itching margins of eyelids. *Staph.*
- Joints red, swollen, stiff. *Bry.*
 Joints swollen, stiff from overstraining. *Rhus tox.*
- Labor-like pains, severe in womb, and extending to back and hips. *Gels.*
 Labor or abortion (after), bleeding from womb, blood dark and clotted, with pain in back. *Sabin.*
 Lassitude and trembling. *Apis.*
 Late and painful teething, with sore, swollen gums. *Mag. carb.*
 Late and profuse menses. *Chel.*

- Late, scanty, short menses. Puls.
 Late, scanty, short menses, with constipation. Sulph.
 Left side of throat worse; dry, swollen, inflamed, and sore; sensitive to touch. Lach.
 Leg and abdomen muscles, cramps in. Verat. alb.
 "Leucorrhœa," see "Whites."
 Lies awake in "small hours." Nux v.
 Limbs cold. Camph.
 Limbs cold, numb, insensible. Secal.
 Lips sore and cracked. Graph.
 Liver-spots, reddish or brown. Sep.
 Load and pressure in stomach after eating. Nux v.
 Load on chest, oppressed breathing, with cough. Phos.
 Loathing and nausea. Ant. crud.
 Location of pain changes rapidly. Puls.
 Lochia profuse, dark, and of bad odor, or suppressed. Secal.
 Longing for fresh air. Puls.
 Loose feeling of teeth. Merc.
 Loss of any animal fluid; for consequences of. China.
 Loss of voice. Ant. crud, *Caust.*
 Lumps in breasts, painful, hard. Phytol.
 Lumps in neck and throat. Merc. prot.
 .
 Margins of eyelids inflamed, styes. Graph.
 Marked pulsation in head. Glon.
 Menses (during), pressure in abdomen and back. Puls.
 Menses (first), delayed. Puls.
 Menses (first), suppressed. Sil.
 Menses flow more by night than by day. Mag. carb.
 Menses, late and profuse. Chel.
 Menses late, scanty, short. Puls.
 Menses, late, scanty, short, with constipation. Sulph.
 Menses painful. Gels., *Vib.*
 Menses profuse, thick, and of strong odor. Carbo veg.
 Menses, suppressed. Sil.
 Menses suppressed after getting feet wet. Puls.
 Menses suppressed, with cramps. Coccu.
 Menses too early and too profuse. Calc. carb.
 Menses too early and too profuse, bright red blood. Bell.
 Menses with colic and cramps. Vib.
 Mental action causes sleeplessness. Coff.
 Mental exertion, indisposed to. Phos.
 Milk, excessive flow of, from painful breasts. Phytol.
 Moans and tosses in sleep. Bell.
 Moist sore places behind ears. Graph.
 "Monthly Sickness," see "Menses."
 Motion makes all pains worse. Bry.
 Mouth and tongue feel scalded. Iris.
 Mouth, corners sore. Merc.
 Mouth dry, thirst constant. Bry.
 Mouth, sore patches in. Merc.
 Mouth sore, with heat and dryness. Borax.
 Mouth, throat, and stomach burn. Ars.
 Mouth, tongue, and throat dry. Bell.
 Much offensive flatus. Carbo veg.
 Much rattling of mucus in chest. Ant. tart.
 Much wind in abdomen. Coccu.
 Mucus and blood in stools which are not satisfying. Merc. cor.
 Mucus collects in throat. Caust.

- Mucus discharge thin (not watery), with cold in head. Merc.
- Mucus rattling in chest. Ant. tart.
- Mucus, thick and tenacious, hawked up mornings. Kalibich.
- Muscular cramps in abdomen and legs. Verat. alb.
- Muscular soreness and rheumatism. Cimicif.
- Nails thick and cracked. Graph.
- Nausea and chilliness, followed by heat flushes, with headache. Sang.
- Nausea and loathing. Ant. crud.
- Nausea and nosebleed with the cough. Ipec.
- Nausea and qualmishness from motion of boat or carriage. Petrol.
- Nausea not better by vomiting. Ipec.
- Nausea with anxiety. Ant. tart.
- Nausea with vertigo and blindness. Acon.
- Neck and back pains, rheumatic. Cimicif.
- Neck and throat glands swollen. Bary. iod.
- Neck stiff with headache. Sil.
- Neck vessels throb. Bell.
- Neck weak. Verat. alb.
- Neuralgia. Gels.
- Neuralgia in temples and forehead, and extending to eyes. Spig.
- Neuralgic pains from suppressed perspiration. Acon.
- Nightmare. Opium.
- Noises, sensitive to. Acon.
- Nosebleed and nausea with cough. Ipec.
- Nosebleed, bright red blood. Ipec.
- Nosebleed during sleep. Merc.
- Nosebleed instead of menses. Bry.
- Nosebleed profuse, blood thin. Phos.
- Nosebleed profuse, dark blood, relieves headache. Ham.
- Nosebleed with pale face. Carbo veg.
- Nose now running, now stopped up. Nux v.
- Nose obstructed, much discharge. Nux v.
- Nose sore, cracked, painful. Graph.
- Nose stopped one side, running the other. Nux v.
- Nose, yellow saddle across. Sep.
- Nostrils sore, cracked, crusty. Ant. crud.
- Numb feeling in head. Graph.
- Numbness in limbs. Acon.
- Numbness, insensibility, and coldness of the limbs. Sec.
- Obstinate constipation, stools hard and dry. Bry.
- Obstructed nose, much discharge. Nux v.
- Odor, strong, of the thick, profuse menses. Carbo veg.
- Offensive belchings. Arn.
- Offensive flatus, much. Carbo veg.
- Offensive foot-sweats. Sil.
- Old, chronic, spasmodic coughs. Dros.
- Open air, sensitive to. Hepar.
- Oppressed and suffocated. Ant. tart.
- Oppressed, anxious breathing. Sulph.
- Oppressed breathing, with cough, sense of load on chest. Phos.
- Oppressed breathing, with displaced womb. Sep.
- Oppression of chest. Ars., Phos.
- Oversensitiveness and debility. Nux v.

- Pain below right shoulder-blade. Chel.
- Pain in bowels, severe. Opium.
- Pain in right side, near and above the waist. Chel.
- Pain in stomach, an hour or so after eating. Puls.
- Pain, rheumatic, better by moving about. Rhus tox.
- Painful, distended abdomen. Colo.
- Painful, distended breasts, with milk. Acet. ac.
- Painful eyes, as if too large, worse by motion. Spig.
- Painful, hard lumps in breast. Phytol.
- Painful, late teething, sore and swollen gums. Mag. carb.
- Painful urging to urinate. Canth.
- Painfully acute senses. Bell.
- Painless diarrhoea. China.
- Painless throbbing in whole body. Glon.
- Pains, aching, and stiffness, better from moving about. Rhus tox.
- Pains all worse on motion. Bry.
- Pains burning and stinging. Apis.
- Pains change location rapidly. Puls.
- Pains, come and go suddenly. Bell.
- Pains, cutting. Bell.
- Pains in neck and back, rheumatic. Cimicif.
- Pains in throat when coughing. Caust.
- Pains in womb, labor-like, extending to back and hips. Gels.
- Pains, neuralgic, from suppressed perspiration. Acon.
- Pains, rheumatic, with fever. Acon.
- Pains, shooting. Bell.
- Pains, soreness, and fullness in region of liver. Podo.
- Pains, sticking, when swallowing, swollen tonsils. Merc.
- Pains through chest (especially left side), and cough, with womb troubles. Cimicif.
- Pale about the eyes. Cina.
- Pale and sunken face. Ant. tart., Ars.
- Pale, cold, sunken face, with diarrhoea. Verat. alb.
- Palpitation of heart. Ars.
- Palpitation of heart with anxiety and restlessness. Acon.
- Paroxysms of coughing prevent breathing. Dros.
- Passage of urine difficult, retention. Acon.
- Passes much urine frequently (child). Cina.
- Passing urine relieves the headache. Gels.
- Pastry or fat food disorders stomach. Puls.
- Pasty taste in mouth. Sulph.
- Pasty, thin, yellow stools. Chel.
- Patches in mouth, sore. Merc.
- Peevish and impatient. Cham.
- "Periods, Monthly," see "Menses."
- Perspiration, profuse and debilitating. China.
- Perspiration, profuse, at night. Merc.
- Perspiration, suppressed, causes neuralgic pain. Acon.
- Piles, bleeding, dark blood. Ham.
- Piles with backache. Aesc. hip.
- Piles with hard, dry, difficult stools. Aesc. hip.
- Piles without bleeding, but with constipation and headache. Nux v.
- Pit of stomach swollen. Calc. carb.
- Poor teeth. Calc. carb.
- Pressing headache, heavy, right side. Chel.
- Pressing in back of head. Bry.
- Pressure and heaviness in stomach as if distended after eating but little. Lyc.

- Pressure and load in stomach after eating. Nux v.
- Pressure and weight on top of head. Cimicif.
- Pressure in abdomen and back during menses. Puls
- Pressure in abdomen, as from a stone, an hour or so after eating. Puls.
- Privates, itching of. Borax, *Balsam of Peru*.
- Privates of either sex, itching of, internal or external. Sulph.
- Privates of women, itching of. Sabin.
- Profuse and early menses, bright blood. Bell.
- Profuse and late menses. Chel.
- Profuse bleeding. Acet. ac.
- Profuse dark lochia of bad odor. Sec.
- Profuse debilitating perspiration. China.
- Profuse nosebleed, blood thin. Phos.
- Profuse nosebleed, dark blood, relieves headache. Ham.
- Profuse sweat, does not relieve. Merc.
- Profuse sweat, mornings. Calc. carb.
- Profuse thick menses of strong odor. Carbo veg.
- Profuse (too) and too early menses. Calc. carb.
- Prostration and weakness. Ars., Phos.
- Puffiness of face. Apis.
- Pulsation in head, marked. Glon.
- Pulse fast and strong. Bell.
- Pulse slow and full, heavy breathing. Opium.
- Pulse strong, hard, full, and fast. Acon.
- Pupils contracted. Opium.
- Pupils dilated. Bell.
- Pupils small, head full, dizzy, cold sweat on forehead. Opium.
- Qualmishness and nausea from motion of boat or carriage. Petrol.
- Raising of thick, tenacious mucus with cough. It may be drawn into strings. Kali-bich.
- Rapid alternations of chill and heat. Acon.
- Rapid pulse. Bell.
- Rash of children. Acon.
- Rash worse in cold, wet weather. Dulc.
- Rattling in the chest with breathing. *Ant. tart.*, Ipec.
- Raw feeling in throat with cough. Nux v.
- Red, dark, bloated face. Opium.
- Red, dry, cracked tongue. Rhus tox.
- Red, hot, flushed face. Bell.
- Red, inflamed eyelids. Ant. crud.
- Red, sandy sediment in urine. Lyc.
- Red, swollen, flabby tongue, moist, with thirst. Merc.
- Red, swollen, inflamed eyelids, glued in the morning. Merc.
- Red, swollen, stiff joints. Bry.
- Reddish or brown liver-spots. Sep.
- Redness and swelling of the face. Rhus tox.
- Relief from passing wind. Carbo veg.
- Respiration wheezing, suffocated. Sulph.
- Restless and anxious from pain. Ars.
- Restless sleep, wakeful. Cham.
- Restlessness and anxiety. Acon.
- Restlessness from pain. Rhus tox.
- Retarded dentition. Calc. phos.
- Retching as if to vomit. Nux v.
- Retention of urine. Canth.
- Retention of urine, passage painful. Acon.

- Rheumatic pains, better from moving about. *Rhus tox.*
 Rheumatic pains in neck and back. *Cimicif.*
 Rheumatic pains with fever. *Acon.*
 Rheumatic sharp pains in wet weather. *Calc. carb.*
 Rheumatic soreness of muscles. *Cimicif.*
 Right-sided pains near and above waist. *Chel.*
 Right temple and eye ache, worse from noise, motion, or jarring. *Spig.*
 Ringing in ears. *China.*
 Root of tongue lame, and painful on swallowing. *Phytol.*
 Rough voice and hoarseness. *Phos.*
 Rumbling and gurgling of wind in abdomen. *Lyc.*
 Running nose, often stopped up. *Nux v.*
 Rush of blood to head. *Bell.*
 Rush of blood to head with whizzing in ears and flushes of heat. *Sang.*
- Saddle across nose, yellow. *Sep.*
 Saliva profuse. *Merc.*
 Sandy sediment in urine (red). *Lyc.*
 Sawing breathing, with dry, barking, croupy cough. *Spong.*
 Scalded feeling of mouth and tongue. *Iris.*
 Scalding urine. *Canth.*
 Scalp eruptions, with crusts that mat the hair. *Graph.*
 Scalp, itching of, sore after scratching. *Sil.*
 Scanty, hot urine, painful. *Acon.*
 Scanty, insufficient stools, constipation. *Sulph.*
 Scanty, late, short menses. *Puls.*
 Scanty, late, short menses and constipation. *Sulph.*
- Scanty, unsatisfactory stools. *Nux v.*
 Scanty, watery stools, frequent. *Ars.*
 Sediment in urine, sandy, red. *Lyc.*
 Sensation of a ball rising into throat. *Lyc.*
 Sensation of a fish-bone or splinter sticking in throat. *Hepar.*
 Sensation of fulness and constriction in throat. *Lyc.*
 Sensation of weight, fulness, and heat in the head. *Gels.*
 Senses painfully acute. *Bell.*
 Sensitive to cold water (gums). *Sep.*
 Sensitive to noises. *Acon., Bell.*
 Sensitive to open air. *Hepar.*
 Sensitive to pain. *Cham., China.*
 Severe laborlike pains in womb, extending to back and hips. *Gels.*
 Severe nosebleed, with pale face. *Carbo veg.*
 Severe pain in bowels. *Opium.*
 Sharp rheumatic pains in wet weather. *Calc. carb.*
 Shocks in the head with every pulse-beat. *Glon.*
 Shooting pains. *Bell.*
 Short, dry, hoarse cough, after exposure to dry, cold wind. *Acon.*
 Shortness of breath from suppressed expectoration. *Ant. tart.*
 Shortness of breath from wind in stomach. *Lyc.*
 Sick headache. *Ipec., Iris., Gels., Nux v., Sang.*
 Side, right, pain in, near and above waist. *Chel.*
 Sight blurred, dizzy. *Gels.*
 Skin cracked, painful nose. *Graph.*
 Skin, dry and crusty. *Ant. crud.*

- Skin dry in fevers. Acon.
 Skin hot and red. Bell.
 Skin irritable, cannot bear touch even of clothing. Lach.
 Skin itches and tingles; sore and burning after scratching. Sulph.
 Skin of hands hard and cracked. Graph.
 Skin unhealthy, slight injuries maturate. Hepar.
 Skin yellow. China.
 Sleepiness, great in all complaints. Apis.
 Sleepless from excessive nervous excitement. Hyos.
 Sleepless from mental activity. Coff.
 Sleep makes all complaints worse. Lach.
 Sleep restless, wakeful. Cham.
 Sleep with tossing and moaning. Bell.
 Sleepy, but cannot sleep. Opium.
 Sleepy by day, wakeful at night. Sulph.
 Sleepy morning and afternoon, but cannot sleep in evening. Puls.
 Slow, full pulse, with heavy breathing. Opium.
 Small pupils, fulness of head, dizzy, cold sweat on forehead. Opium.
 Small wounds bleed much. Phos.
 Small wounds heal slowly and discharge much matter. Sil.
 Smell, bad, in the nose. Puls.
 Smooth warts. Ant. crud.
 Sneezing. Sang.
 Snoring breathing. Opium.
 Soft stool, with straining. Merc. cor.
 Sore and swollen gums, late teething. Mag. carb.
 Sore breasts, to touch. Calc. phos.
 Sore, bruised, weary, weak. Arn.
 Sore corners of mouth. Merc.
 Sore, cracked, crusty nostrils. Ant. crud.
 Sore, inflamed, swollen, dry throat, worse left side, and sensitive to touch. Lach.
 Sore, moist places behind the ears. Graph.
 Sore patches in mouth. Merc.
 Sore, swollen, bleeding gums. Merc.
 Sore throat from coughing. Caust.
 Sore throat, swollen. Bell.
 Sore tongue, red tip. Rhus tox.
 Soreness and cracking of lips. Graph.
 Soreness and rheumatism of muscles. Cimicif.
 Soreness, burning, itching, and fulness of back passage. Aesc. hip.
 Soreness, pain, and fulness near liver. Podo.
 Sores and carbuncles, unhealthy. Lach.
 Sores, cankers in mouth. Rhus tox.
 Sores in the mouth, with heat and dryness. Borax.
 Sour, bitter belchings. Nux v.
 Sour stomach. Carbo veg.
 Sour taste in mouth. Calc. carb.
 Sour vomiting. Calc. carb.
 Sparkling eyes. Bell.
 Sparks and flashes before the eyes. Bell.
 Spasmodic cough, chronic. Dros.
 Spasmodic whooping-cough. Meph.
 Splinter or fish-bone sticking in throat (sensation of). Hepar.
 Stabbing, as with a knife, from one temple to the other. Bell.
 Starts from sleep in fright. Bell.
 Sticking pains when swallowing, swollen tonsils. Merc.
 Sticky, watery fluid, from itching blotches. Graph.

- Stiff neck and headache. Sil.
 Stiff, swollen joints from overstraining. Rhus tox.
 Stiff, swollen, red joints. Bry.
 Stiffness, and aching pains, better from moving about. Rhus tox.
 Stiffness, heaviness and swelling of eyelids. Rhus tox.
 Stinging and itching when taking off the clothes. Rumex.
 Stinging, burning pains. Apis.
 Stitches beneath right ribs. Chel.
 Stitches in chest, with cough. Acon.
 Stomach, acidity of. Iris.
 Stomach disordered from fat food or pastry. Puls.
 Stomach distended, with pressure and heaviness after eating but little. Lyc.
 Stomach feels full and tight. Carbo veg.
 Stomach full after eating but little. Sulph.
 Stomach, load and pressure after eating. Nux v.
 Stomach, mouth, and throat burn. Ars.
 Stomach painful, an hour after eating. Puls.
 Stomach, pit of, swollen. Calc. carb.
 Stomach sour. Carbo veg., Iris.
 Stools frequent, greenish mucus. Ipec.
 Stools frequent, scanty, and watery. Ars.
 Stools green, frothy, like the scum of a frog-pond, with cutting and griping. Mag. carb.
 Stools green, watery, hot. Cham.
 Stools hard and dry; obstinate constipation. Bry.
 Stools hard, dry, difficult, with piles. Aesc. hip.
 Stools of hard, round, black balls; constipation. Opium.
 Stools of mucus and blood, which do not satisfy. Merc. cor.
 Stools of undigested food. Calc. carb.
 Stools scanty and unsatisfactory. Nux v.
 Stools scanty, insufficient; constipation. Sulph.
 Stools smell of bad eggs. Cham.
 Stools soft, with straining. Merc. cor.
 Stools thin, pasty, bright yellow. Chel.
 Stools white (children). Calc. carb.
 Stools yellow, watery, gushing. Podo.
 Straining, with soft stool. Merc. cor.
 Strong, hard, full, and fast pulse. Acon.
 Stupid and dull, with heavy breathing. Opium.
 Styes, especially of lower lids. Staph.
 Styes, margins of eyelids inflamed. Graph.
 Subject to styes, especially on upper eyelids. Puls.
 Sudden desire to pass water. Sulph.
 Suffocated and oppressed. Ant. tart.
 Suffocated, wheezing respiration. Sulph.
 Sunken, cold, pale face, with diarrhœa. Verat. alb.
 Sunstroke. Glon.
 Suppressed lochia. Sec.
 Suppressed menses. Puls., Sil.
 Suppressed menses after wetting feet. Puls.
 Suppressed menses, with cramps. Coccul.
 Suppressed perspiration gives neuralgic pains. Acon.

- Swallowing with sticking pains, tonsils swollen. Merc.
- Sweat from head only. Calc. carb.
- Sweat, profuse and debilitating. China.
- Sweat, profuse, does not relieve. Merc.
- Sweat, profuse, mornings. Calc. carb.
- Sweat, suppressed, causes neuralgic pains. Acon.
- Sweaty feet, offensive. Sil.
- Sweetish or bitter, pasty taste in mouth. Sulph.
- Sweet water accumulates in mouth. Puls.
- Swelling and inflammation of breasts. Phytol.
- Swelling and redness of face. Rhus tox.
- Swelling of ankles. Apis.
- Swelling, stiffness, and heaviness of eyelids. Rhus tox.
- Swollen eyelids, pale. Ars.
- Swollen, flabby, red tongue, moist, with thirst. Merc.
- Swollen glands. Merc. prot.
- Swollen glands of neck and throat. Bary. iod.
- Swollen gums, late teething. Mag. carb.
- Swollen, inflamed, red eyelids, glued mornings. Merc.
- Swollen, inflamed, sore, dry throat, worse left side, and sensitive to touch. Lach.
- Swollen, red, puffy eyelids. Apis
- Swollen, red, stiff joints. Bry.
- Swollen, sore, bleeding gums. Merc.
- Swollen sore-throat. Bell.
- Swollen, stiff joints from overstraining. Rhus tox.
- Swollen tonsils, sticking pains when swallowing. Merc.
- Symptoms constantly changing. Puls.
- Taste bad in mouth. Puls.
- Taste bad in mouth mornings. Nux v.
- Taste bitter. *Carbo veg.*, Cham., Chel.
- Taste in mouth, sour. Calc. carb.
- Taste of food in belchings. Ant. crud.
- Taste pasty, sweetish, or bitter in mouth. Sulph.
- Tearing in neck. Acon.
- Teeth feel loose. Merc.
- Teeth painful to touch. Lyc.
- Teeth poor. Calc. carb.
- Teething delayed. Calc. phos.
- Teething late and painful, with sore, swollen gums. Mag. carb.
- Temples ache, stabbing pain as from a knife. Bell.
- Temples, forehead, and eyes, neuralgia in. Spig.
- Temples, throbbing in. Glon.
- Tenacious, thick mucus hawked up in morning. Kali-bich.
- Thick and cracked nails. Graph.
- Thick eruption with matter. Ant. tart.
- Thick, profuse menses, strong odor. *Carbo veg.*
- Thick, white coating on tongue. Ant. crud.
- Thick, yellow mucus expectorated with cough, worse in warm room, better out-of-doors. Puls.
- Thin, irritating discharge from nose. Ars.
- Thin (not watery) discharge with cold in head. Merc.
- Thin, pasty, yellow stools. Chel.
- Thirst constant, dry mouth. Bry.
- Thirst excessive. Verat. alb.
- Thirst for large draughts. Bry.
- Thirst for small quantities at a time. Ars.
- Thirst unquenchable, with fever. Acon.

- Throat and sides of chest feel raw with cough. *Nux v.*
- Throat dry, much saliva in mouth. *Merc.*
- Throat dry, sore, inflamed, and swollen, worse left side, and sensitive to touch. *Lach.*
- Throat, lumps in. *Merc. prot.*
- Throat, mouth and stomach burn. *Ars.*
- Throat, mouth, and tongue dry. *Bell.*
- Throat, mucus collects in. *Caust.*
- Throat pains when coughing. *Caust.*
- Throat, sensation of a splinter or fish-bone sticking in. *Hepar.*
- Throat, sore and swollen. *Bell.*
- Throbbing head a c h e , hot. *Bell.*
- Throbbing in temples or in whole body, painless. *Glon.*
- Throbbing of vessels in the neck. *Bell.*
- Throbbing without pain in head. *Glon.*
- Tic douloureux. *Spig.*
- Tight feeling about abdomen. *Calc. carb.*
- Tight, full feeling of stomach. *Carbo veg.*
- Tingling and itching of skin, with soreness and burning after scratching. *Sulph.*
- Tongue and mouth feel scalded. *Iris.*
- Tongue, blistered. *Cham., Lyc., Rhus tox.*
- Tongue coated, thick, white. *Ant. crud.*
- Tongue coated, yellow. *Chel.*
- Tongue, mouth, and throat dry. *Bell.*
- Tongue, red, dry, and cracked. *Rhus tox.*
- Tongue, red, swollen, flabby, moist, with thirst. *Merc.*
- Tongue, root of, lame and painful on swallowing. *Phytol.*
- Tongue, sensation of hair on. *Sil.*
- Tongue sore, red tip. *Rhus tox.*
- Tonsils swollen, sticking pains when swallowing. *Merc.*
- Toothache. *Tabac.*
- Toothache better from drinking cold water. *Bry.*
- Toothache during pregnancy. *Calc. carb.*
- Toothache from warm drinks. *Cham.*
- Toothache, tearing, in decayed teeth. *Staph.*
- Toothache, worse at night and from warmth. *Merc.*
- Top and back of head ache with womb trouble. *Cimicif.*
- Top of head feels as if it would fly off. *Cimicif.*
- Tosses and moans in sleep. *Bell.*
- Tough expectoration, with cough, draws out into strings. *Kalibich.*
- Trembling. *Ant. tart.*
- Trembling and lassitude. *Apis.*
- Twisting, griping, cutting colic. *Colo., Dios.*
- Twisting pains about the navel. *Cina.*
- Twitching of limbs. *Bell.*
- Twitching of muscles, convulsive. *Cham.*
- Twitching of the face. *Bell.*
- Unable to work. *Nux v.*
- Undigested food in stools of diarrhoea. *Calc. carb., China.*
- Unhealthy skin, slight injuries matureate. *Hepar.*
- Unhealthy sores, carbuncles. *Lach.*
- Unsatisfactory, scanty stools. *Nux v.*
- Urging to urinate, painful. *Canth.*
- Urine burning. *Ars.*

- Urine cloudy, dark yellow. *Chel.*
 Urine much, passed often (child). *Cina.*
 Urine passed drop by drop. *Bell., Canth.*
 Urine, passed in sleep. *Caust.*
 Urine passed when coughing. *Caust.*
 Urine passed with difficulty. *Ars.*
 Urine passed without feeling. *Caust.*
 Urine, sandy, red, sediment in. *Lyc.*
 Urine, scalding. *Canth.*
 Urine scanty, hot, passed with pain. *Acon.*
- Vertigo and dim sight. *Gels.*
 Vertigo, as if turning. *Bry.*
 Vertigo with nausea and blindness. *Acon.*
 Violent congestions and inflammations. *Bell.*
 Violent, constant belchings. *Carbo veg.*
 Violent earache. *Puls.*
 Violent griping and cutting in bowels. *Opium.*
 Violent vomiting, with great exhaustion. *Verat. alb.*
 Voice, loss of. *Ant. crud., Caust.*
 Voice rough, hoarseness. *Phos.*
 Vomiting of very sour fluid. *Calc. carb., Iris.*
 Vomiting, violent, with great exhaustion. *Verat. alb.*
 Vomiting with great effort, and long lasting. *Ant. tart.*
- Wakeful, restless sleep. *Cham.*
 Warts. *Thuja.*
 Water, sweet, accumulates in mouth. *Puls.*
 Watery, bloated conditions of the skin. *Ars.*
- Watery diarrhoea, yellow, after taking cold. *Dulc.*
 Watery, green, hot, stool. *Cham.*
 Watery, gushing, yellow stool. *Podo.*
 Watery, scanty, frequent stool. *Ars.*
 Watery, sticky fluid from itching blotches. *Graph.*
 Weak, exhausted after sleep. *Lach.*
 Weak neck. *Verat. alb.*
 Weak, weary, sore, bruised. *Arn.*
 Weakness. *China.*
 Weakness and exhaustion. *Ars., Phos.*
 Weight and pressure on top of head. *Cimicif.*
 Weight, fulness, and heat in head. *Gels.*
 Weight of clothing or bedclothing cannot be endured. *Lach.*
 Wheezing, suffocated respiration. *Sulph.*
 White and bluish about the mouth. *Cina.*
 White stools of children. *Calc. carb.*
 White, thick coating on tongue. *Ant. crud.*
 "Whites" like milk. *Calc. carb.*
 "Whites" like thick cream. *Puls.*
 "Whites" like white of egg. *Borax.*
 Whites of eyes are dirty yellow. *Chel.*
 "Whites" worse at night, with greenish, irritating discharge. *Merc.*
 Whooping-cough. *Dros., Meph.*
 Wind colic. *Caps., Carbo veg., Colo., Dios.*
 Wind colic at night. *Coccul.*
 Wind fills abdomen to bursting. *Carbo veg.*
 Wind in stomach mornings and after eating. *Nux v.*

Wind, much, in abdomen. Coccul.	Wounds, small, heal slowly, and discharge much matter. Sil.
Wind passed upward and downward with relief. Carbo veg.	Yellow, cloudy urine. Chel.
Wine causes headache. Nux v.	Yellow, coated tongue. Chel.
Womb, falling of. Sep.	Yellow face. Chel.
Worse after sleep. Lach.	Yellow saddle across nose. Sep.
Worse at night. Merc.	Yellow skin. China.
Worse from cold and dampness. Dulc.	Yellow, thick mucus expectoration, with cough, worse in warm room, better out-of-doors. Puls.
Worse from keeping still, better from moving about. Rhus tox.	Yellow, thin, pasty stools. Chel.
Worse in morning and after eating. Nux v.	Yellow, watery diarrhœa after taking cold. Dulc.
Worse late in afternoon. Lyc.	Yellow, watery, gushing stool. Podo.
Wounds, small, bleed much. Phos.	Yellow, whites of eyes. Chel.

CHAPTER XXI.

NURSING.

The difference between the ordinary domestic prescriber and the professional physician is not greater than that between the household attendant upon the sick and the trained professional nurse, and it would be as easy to condense into such a volume as the present the whole science of medicine as to explain in a chapter the accomplishments and duties comprehended in the modern art of nursing. No office open to woman, save those of mother and teacher, offers a wider field for the exercise of cultivated brains, and makes more extensive demands upon mental and physical resources, of almost every variety, than does that of caring for the needs and observing the condition of the sick. The nurse must rule her spirit, not merely by suppressing emotion and passion, but by having neither; while yet she must be animated by such a perfect sympathy for her patient as shall make her, not simply always kind and tender, but also able to anticipate his every need before he is himself conscious of it. She must execute her tasks without expecting either thanks or appreciation; in fact, she should do her part so unobtrusively that her patient will not even know that anything has been done,

save by never finding himself in any need. She must be decidedly the superior of the best cooks, laundresses, and housekeepers in their own specialties, and must add to their accomplishments judgment, thoughtfulness, and dexterity, such as their vocations rarely demand. She must know something of sanitary science and surgery, and she must have powers of observation trained far, very far, beyond the average. She must love her work; and while she must feel keenly the great responsibilities that rest upon her, she must yet be always mistress of herself, and able to act as freely and readily as if she were merely amusing herself.

Upon good nursing often depends the success of any plan of treatment; and while good nursing first and foremostly implies the carrying out to the letter the instructions of the physician as to what is to be done with the particular case in hand, regardless of all previous cases, all preconceived notions, and all different instructions of other physicians at other times, there are yet many things expected of the nurse which should be understood without definite instructions from the physician, and which should always be done unless specially interdicted.

And first, the nurse should carefully watch the patient. She should note the slightest change in him, be it but the drooping of an eyelid, the flushing of an ear, or the twitching of a finger. Nothing should escape her; and she should know just when and under what circumstances occur all that she notes, and she should *know* accurately and definitely just what does or does not occur. Yet this knowledge she must obtain without an-

noying the patient or making him feel that he is watched like a thief.

Perhaps the most important thing demanding her attention is cleanliness; cleanliness first of herself, then of her patient, next of his bed, next of the air in his room, and next of the utensils, and of the room itself. And cleanliness in a medical sense signifies something very, very far beyond what would satisfy the most scrupulous housekeeper. The room occupied by a very sick patient should have no carpet, no curtains, no upholstered furniture, and no wall-paper. None of these things can by any possibility be kept clean in a medical sense. Walls and floor should be finished in oil and cleaned by wiping with damp cloths. The bed should be of iron, with a woven-wire and one hair mattress only, and it should be so made up that air can freely circulate underneath as well as over it—no valance, no hangings. The patient's clothing and bedclothing should be changed as often as soiled, and, in fever cases, at least every day under any circumstances. There should be no blanket under the patient; this is one of the fruitful causes of bed-sores. In making the bed the nurse should know how to do that without disturbing the patient any more than is absolutely necessary, by pleating up the sheet and drawing it under the different parts of the body without raising them more than half an inch, and then in such a way as will not strain, twist, or wrench the patient. Absolute cleanliness, frequent removal of soiled clothing, bathing of the parts upon which the body usually rests, entire omission of such heating things as blankets under the patient, and, if he be strong enough,

his use of separate day and night beds, or, at least, of the two sides of the bed by day and by night, allowing of the thorough airing of the parts upon which he has lain ; or, in case the patient be too weak to be moved, the use of the water-bed, or of a pair of water-pillows, which answer the same purpose often, but are lighter and easier to handle—these are the best means of preventing bed-sores, for which affliction the nurse should usually be held responsible.

The details with regard to bathing a patient, and the times at which it is to be done, will be prescribed by the physician in each case ; but if the patient be confined to his bed, bathing should be accomplished by uncovering only a small portion of the body at once, bathing and drying that, and then covering it before proceeding to another portion, or else bathing it under the bed-clothes, which may be held up by another person. A sponge is the best means of applying water, and should be soft, but does not need to be very wet. Care should be taken to bathe frequently the parts upon which the weight of the body rests, to guard against bed-sores, and it is well to anoint such parts with a very little vaseline after washing. Upon the first appearance of irritation at such points, provide an air-cushion of rubber, in the form of a ring, which will transfer the pressure to sound and healthy skin ; or, better, provide a water-pillow. Water of 95° to 85° F. should be used for sponging a patient who is absolutely confined to bed. For those who are able to enter the bath-tub, the directions given in the introduction, and in speaking of the different diseases, must suffice. The water-bed, or pil-

low, should be filled only moderately full, and at first with rather warm water, which will not need to be changed very often.

There is but one way to keep the air in a room, especially a sick-room, clean and wholesome, and that is by constantly changing it for the pure, fresh, out-of-doors air. That is no ventilation which takes air from other rooms, or the cellar, to mix with the already vitiated air of an apartment, nor is that a satisfactory plan of ventilation which merely admits fresh air without providing for the escape of foul. If foul air be taken from a room through a fireplace, while no provision is made for the admission of fresh air, the cracks and porous materials in the walls of the room will yet certainly admit air to take the place of that expelled; but the air thus admitted is more likely to come from the cellar, the sewers, or, at best, from neighboring rooms, than from the outer air. Provision, then, must be made for both the exit of the foul and the entrance of fresh air into the sick-room, if the patient is to have the benefit of health-giving oxygen. Where the fresh air should be admitted, and where the foul air should be expelled, are questions over which there is still wrangling; but if the opportunity be granted the air to freely circulate between in-doors and out-doors, the law of the diffusion of gases will take care of any poisonous exhalations from either patient or nurse. The problem for the nurse is to secure free circulation without allowing a draught to fall upon the patient, and without permitting the temperature of the room to vary far from that which is thought best for the invalid. Separate openings must be provided for ingress and

egress of air, and something must be done to induce varied temperatures in the air, for this is the only available means of inducing circulation. A fireplace, or chimney without fire, is absolutely useless as a ventilator, but a lamp or candle set in such a fireplace will create a draught up the chimney, although, perhaps, not a sufficient one. A register communicating with a furnace will admit all needed air to a room ; but care must be taken that the air admitted to the furnace is drawn from pure supplies—not from the cellar nor from back alleys or other foul reservoirs out of doors.

The window is the handiest ventilator, and the one which must be used if nothing better have been provided. Open it top and bottom, if there be no other air-carrier ; or if there be a register near the floor, open the top of the window, while if the register be near the ceiling, the bottom of the window should be open. Cover the opening with a piece of cloth, blanket, or muslin, such as will prevent a strong draught, while it at the same time admits of an unmistakable flow of air. Keep the doors of the room closed, and do not use a window for ventilation that opens upon anything offensive to the sense of smell. Protect the patient from direct draughts, but do not do this in a way that will prevent the free circulation of air over and under the bed. These precautions, taken in a room as large and sunny as possible, and upon an upper floor, will make the patient's surroundings favorable, and go far in promoting his recovery.

But in case of contagious disease it is well to do something more to secure pure air in the room lest there be

danger to others from its poisonous contents. Disinfection should be practised, and for this purpose nothing will be found more generally useful than Platt's Chlorides. A sheet should be hung before the door of the room, and kept constantly damp with this solution, diluted with about four parts of water. The same dilution should be kept in vessels about the room, and towels moistened with it should be hung up in the room, and occasionally shaken to get a spray of the chlorides into the air. All the vessels used by the patient should constantly have a little of the chlorides lying in them when not in use.

The greatest care must be taken with the discharges from the patient, especially those from the bowels. They must be closely covered as soon as passed, and must be taken from the room at the earliest moment possible and emptied. Metallic vessels should never be used for the discharges of the sick. Always use highly glazed earthenware. And such vessels should never be left in the sick-room. Bring them in when wanted, carry them out as soon as used, empty them, wash at once, first with plenty of hot water and then with the solution of chlorides; then put some of the latter solution into the vessel to remain till used again; cover; and last, wash out the water-closet—if that be the place of emptying—also with the chlorides. If the patient expectorates, provide *no* vessel whatever to receive these discharges, but make use of pieces of paper or old cloths and burn these the instant they are used or soiled.

Another thing requiring careful attention is the cleaning of the room. As already remarked, carpets and

upholstery should not be allowed in a sick-room—they cannot be kept clean. The furniture should be smooth, and, where possible, polished, and of such a nature that it can be washed. No ledges to accumulate dust should be permitted, and all cleaning should be done with the aid of water—care being taken to prevent the air of the room from becoming damp. Sweeping and dusting with a dust-brush are not to be thought of while the patient occupies the room.

After being occupied by a sick person a room should be thoroughly disinfected. Everything that will bear washing should be boiled for two hours, and the wood-work and walls should be scrubbed. Then everything in the room should be hung up or arranged so as to be freely exposed to the air, every outlet from the room should be closed, and paper pasted over all cracks and crevices. Then a tub should be brought, containing two bricks, which should be set on edge; water should be put into the tub almost level with the top of the bricks. Upon the latter should be placed a saucer, plate, or other shallow dish containing sulphur in small broken pieces, the quantity being about three pounds for each one thousand cubic feet of air-space in the room. When all is ready, alcohol should be poured over the sulphur and lighted, and immediately the room should be left, the door tightly closed and allowed to remain closed for twenty-four hours. Then the room should be opened freely and quickly, and allowed to air thoroughly for some hours, after which it may again be put to its ordinary uses.

With regard to the patient's diet, special directions

have been given in many cases, or will be so given by the physician when required. In general it is necessary to stimulate or encourage the appetite of an invalid, and to do this requires tact and judgment. No food should ever be cooked or prepared in sight of the patient or in the sick-room, nor should the smell of cooking be allowed to reach the apartment. As a rule, it is not a good plan to ask the patient what he will have, or to talk about his food. Of course, the cooking should be to perfection; but, in addition to that, care must be taken to serve everything in the most attractive form, bringing comparatively small portions to the bedside in the most delicate of dishes and without the faintest suspicion of "mussiness."

As to the kinds of food to be selected, that must depend, first, on the nature of the disease. This will lead the physician to select or forbid certain articles in special cases. But among permitted aliments the choice must be made after taking into consideration the cravings of the patient, the nutritive value, and the digestibility of the foods. The cravings of the patient are only of value in directing a selection when they are certainly natural. The depraved appetite resulting from habitual abuse of the stomach is not a good guide in the selection of food or drink, and should never lead us to the choice of such articles as are known to be hurtful. But the cravings of a stomach disordered only by disease sometimes give us most valuable hints as to what conditions or deficiencies exist in the body, although the physician may not always think it best to permit the exact thing demanded.

The foods which combine nutriment and digestibility

to the highest degree are the concentrated and predigested foods, of which several excellent brands are now in the market. But these foods are rarely palatable, and as they reduce the work of the digestive organs to a minimum, they are only to be used for the weakest invalids or in combination with other aliments.

The food which best fulfils all conditions as to palatability, digestibility, and nutritive value is, undoubtedly, milk. Life can be sustained and daily work accomplished for months together on an absolutely exclusive diet of milk. It needs no cooking or other preparation to adapt it to the use of most invalids, except what is required to preserve it from souring. But many find that milk makes them "bilious," as the saying is, although it very often happens that persons who assert most positively that they never can drink milk without this bad effect, find, if they can be prevailed upon to make one more attempt, that the biliousness somehow fails to make its appearance. However, if raw milk does disagree, several experiments should be tried with it before its use is abandoned. First, it should be skimmed; that failing, it should be boiled both with and without the cream; then try icing it; next add a very little salt to the milk, not enough to be perceptible to the taste; next add lime-water, using very little at a time, about a tablespoonful to a quart of milk. Very much larger proportions of lime-water may be used for short times if needed—to allay vomiting from some causes, for example, a tablespoonful each of lime-water and milk, mixed, may be given; but any such proportion would soon ruin the stomach if used as a regular diet, and our object now is

to find a way of making milk acceptable when it cannot be used in the raw state. All of these plans failing, we have left us the plan of predigesting the milk, which is pretty sure to secure its harmlessness, but may render it somewhat less palatable. The easiest and best plan of predigesting is by using the peptonizing powders of Messrs. Fairchilds & Foster, which come in tubes, with full directions. Buttermilk may be used instead of milk, if it be fresh. And milk, in whatever form, if used as the sole or chief article of diet, should be taken preferably in rather small portions, repeated at intervals of from two to three hours.

Beef-tea demands a word in this place, as it is a very widely used article in the sick-room, and is probably supposed by most people to be a sort of food. It is, however, little more than a mild stimulant, and several gallons of it would have to be taken before as much real food would be introduced into the system as is contained in one pound of beef. The article has its uses and will be needed in the sick-room, but must not be relied upon as a nutriment for any length of time, unless made by such a recipe as the following, taken from Gatchell's "How to Feed the Sick"—a book, by the way, which it would be well for every family to possess in time of sickness, the price of which is but a dollar :

"Take one pound of fresh meat (beef), cut very fine, soak in one-third of a quart of water over night. In the morning remove the meat, saving the water in which it has been soaked. Put the meat into two-thirds of a quart of cold water, and let it simmer for two hours,

keeping the water up to its original level by replacing what is lost by evaporation. Now pour the beef-broth into the cold liquor in which the meat was soaked, squeezing the meat as dry as possible.

“The meat which remains should be spread on a tin plate, and slowly dried in an open oven. When perfectly dry it can be easily reduced to a powder in a mortar. Mix this meat-powder in the liquor, and you have all the elements of the meat in a fluid form. Salt to taste, and add twenty drops of muriatic acid and three grains of pepsin.

“This is the *only* preparation of beef-tea which contains *all* the virtue of the meat. Other beef-teas are stimulating, but they have no nutritive value whatever.

“A simpler method, and one which will answer for ordinary purposes, is the following :

“Prepare a pound of beef in the usual manner [cutting it very fine] and soak it in a pint of cold water for two hours. Now place the vessel containing the meat in a saucepan of water, and let the water in the latter boil for three hours (putting the meat and water into a stone bottle, and this into a keg of boiling water, answers the same purpose). Replace water that is lost by evaporation. When done, strain and salt to taste. The last vestige of fat may be removed by skimming the surface with a piece of white blotting-paper.

“If a patient have a continued fever, and it be known that beef-tea will be wanted from day to day, too much pains cannot be taken in its preparation. It is well to observe the following

“ RULES :

- “ 1. Never let beef-tea boil.
- “ 2. Always begin with cold water.
- “ 3. The finer the beef is cut the better.
- “ 4. There should be no fat, gristle, or bones adhering to the meat.
- “ 5. The proper proportion of beef and water is a pound to a pint.
- “ 6. Beef-tea that ‘jellies’ when cold has not been properly made.
- “ 7. After being made, carefully remove from the surface all traces of fat.
- “ 8. To ‘warm up’ beef-tea, put it in a cup and set the cup in a vessel of boiling water.”

The above rules are excellent for beef-tea, and the first recipe will make a beef-solution partially predigested and undoubtedly of nutritive value, but probably not so good as the best beef-solutions to be had nowadays at the drug-stores.

Mutton-broth is more nutritious than beef-tea, and chicken-broth has still more food value, as water will dissolve more food elements from chicken than from either mutton or beef. Oyster-soup and the liquor of oyster-stew are also of value, and add to the list of liquid foods of domestic manufacture ; while clam-broth often seems more palatable and nutritious than any other variety, although the relish for it may be quickly lost by a patient who at first took it with avidity.

Of beverages for the sick there is a large list, exclud-

ing entirely all preparations containing alcohol, which are only to be used by the express orders of the physician. Water is the best of beverages, and can be taken *ad libitum*, either hot or cold, by most patients ; but sometimes it is objectionable, and at other times it is unsatisfying. Here, then, is the field for jelly-waters, raspberry-shrub, toast-water, apple-water, lemonade, tamarind-water, and many other innocent and useful drinks, for all of which Dr. Gatchell gives excellent recipes in the book already mentioned. And in striving to satisfy a burning thirst, lumps of ice allowed to melt in the mouth must never be forgotten ; nothing can equal them for this purpose.

Of hot drinks, cocoa, broma, shells, chocolate, and black tea are usually innocent in moderate quantities ; coffee is more apt to be objectionable, but may be permitted by the physician in certain cases.

Of more solid articles of diet, when they are permissible, the gruels and mushes are usually palatable, while they also fulfil the other indications, digestibility and ability to nourish the body. Those made from wheat head the list, while corn comes next. Oatmeal is probably too highly esteemed as a food for the sick. It is too strong and substantial a food for invalids, and makes too great demands upon the digestive organs. When used at all, be careful to make it into a very thin gruel. Rice is far easier of digestion, and is a very valuable article of diet for the sick-room, and, if thoroughly well cooked (as it ought always to be), is usually relished and rarely harmful. Sago and tapioca will do much good in the sick-room ; but corn-starch is too dif-

ficult of digestion to come in well till the patient is on the high-road to recovery, and blessed with a good appetite and a fair digestion. Corn-starch and farina should always be omitted in hot weather; but then arrow-root may be taken.

Of meats the most digestible is chicken, and it is of great value in feeding the sick, but it will hardly answer as a steady diet. Turkey and pigeon are not quite so valuable, but are more delicate than the flesh of quadrupeds. Of the latter the young meats, like veal and lamb, are harder to digest, and hence less acceptable to the sick than are beef, mutton, and venison. Mutton is the best of these meats, considering digestibility as a main point, and lamb is to be preferred to veal. But the great value of beef is such as to make it stand at the head of all solid foods for this climate, at least for healthy stomachs. A word should be said, however, in opposition to the present fashion of eating beef in an almost raw and merely warmed condition. There are peculiar physical states for which raw or very rare meat is suitable, but for most persons the cooking should be thoroughly well done. Cooking coagulates albumen and renders it more soluble—that is, digestible—in the gastric juices, whereas raw meat and blood are exciting and stimulating in a high degree, and should not be used as constant and regular food.

But beef should be cooked in a way that will retain its juices, and that can be accomplished by subjecting it, first, to a very high heat, which will cause a sort of crust to form on the outside, and then a lower heat will finish the process to perfection. During the cook-

ing the outside crust should not be pierced by fork or knife.

And as with beef so with that other article of food which ranks after milk in its great value and usefulness—eggs. They should be well cooked, and for the sick the best plan is to poach them. They are not so digestible when cooked in the shells or when fried.

Bread when it comes from the oven is never done, nor do the chemical processes which make it a wholesome article of food reach completion under twenty-four hours after that time. And besides the unsuitable character of the bread itself, when warm it has the additional disadvantage of melting butter applied to it, thus raising the latter to a temperature at which butyric acid is developed—a substance utterly unfit to enter a delicate stomach. Stale bread may be given many of the agreeable characteristics of fresh, without any objectionable quality, by simply reheating it in a closely covered dish, and the very palatable form in which bread can be presented by toasting is well known in every household. Biscuit and rolls are not suitable for the stomachs of sick-folk.

As a rule, in all cases of sickness the following articles should be forbidden: Everything of whatever name that is not in prime condition, pork, salted meats, eel, lobster, crab, clam, young meats, sausage, cheese, pastry and fried articles, confectionery, fresh bread, soda-biscuit, tomato, cabbage, radish, onion, garlic, horse-radish, mustard, pepper, spices, spirituous liquors, ale, wine, beer, mineral water, coffee, and tobacco. Some of the above articles may be allowed, or even required,

by the physician in special cases, but the list will be found serviceable as a guide for general use.

On the other hand, unless peculiar conditions lead the physician to particularly forbid one or more of the following-named articles, they may be allowed to patients in accordance with their own desires and digestive ability: Beef, mutton, tongue, venison, turkey, chicken, pigeon, wild-fowl, oysters, fresh scale-fish, eggs, soups, and broths, including clam-broth, stale bread, plain puddings, mush, gruel, butter, arrow-root, sago, tapioca, potato, cauliflower, spinach, rice, peas, beans, corn, barley, fresh ripe fruits, stewed prunes, fruit jellies, milk, buttermilk, cocoa, chocolate, broma, shells, lemonade, black tea, ice-cream, and sherbet.

With this brief glance at the duties of the physician's most important assistant the subject must be left, in the hope that these few suggestions may be the means of aiding some poor sufferer in finding the speediest road to recovery and health. Sick persons undoubtedly get well who neglect or violate many of the rules herein laid down, but it cannot be doubted that the teaching of experience is that their observance is very greatly to the advantage of the patient, and hence to that also of those dependent upon him or compelled to minister to his needs in sickness.

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